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PHILIP MILLS JONES, M. D., Secretary and Editor

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George H. Evans, M. D.
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ADDRESS ALL COMMUNICATIONS

Secretary State Society,	Butler Building,
State Journal,	San Francisco.
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Telephone Douglas 2537

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EDITORIAL NOTES.

For the first time in some years, it is not possible to print the full report of the annual meeting of the State Society, held at Sacramento April 19th to 21st, in the May issue of the JOURNAL. Some of the reports and essential documents necessary to complete the records were not available until the close of the sessions and it would have delayed publication too long had the JOURNAL been held up awaiting them. This is unfortunate, but it did not seem desirable to publish a portion of the reports and the minutes of the sessions in one number and the balance, including the report of the President, in a subsequent number. In this issue, however, will be found a running account of the meeting and some items of interest in connection with it; the full and complete report and the official minutes will appear in the issue for June. The meeting was a distinct success, though doubtless a larger representation of our members from the South would have been on hand had the place been more centrally located. The profession of Sacramento did everything possible to contribute to the pleasure and the comfort of those in attendance, and the members who were there will not soon forget the very pleasant meeting at Sacramento. The new Hotel Sacramento was comfortable to the point of luxury and the management did everything possible to make our members enjoy their stay.

As most of our readers are doubtless aware, a movement has been on foot for a number of years to secure the creation by the federal government of a Department of Public Health.

The agitation was really commenced by the American Medical Association quite a few years ago. Later, a Committee of One Hundred of the American Association for the Advancement of Science was formed to do pretty much the same work. Many conferences and joint sessions have been held and a great deal of agitation has been the result. President Taft, in his message, endorsed the movement to establish a Bureau or a Department of Public Health. Senator Owen, of his own initiative, drew up and introduced Senate Bill No 6049, which creates a Department of Public Health with a cabinet officer at its head. This bill the united energies of the Committee of One Hundred and of the American Medical Association are now urging upon the Congress. The law proposed is a most excellent one and it should have the hearty support of every public-spirited citizen. Write to your Senator and your Congressman at once and urge upon them that they be not inactive in supporting this measure. It assuredly is high time that almost as much attention should be given by the federal government to the health of its citizens as it gives to the health of its hogs. And particularly, write to Senator Perkins. He seems to have acquired a peculiar idea, in some occult way, that local boards of health are opposed to the bill. In a letter to one of our members who wrote to him on the subject, he says: "Inasmuch as nearly every Board of Health in the United States is opposed to any change in the present method of caring for the public health, it is very doubtful whether the Owen bill will pass." Will Mr. Perkins please be a little specific in regard to the boards of health in his own state? Does the State Board of Health oppose this bill? Does he know of any county or city board of health that opposes it? A little more enlightenment is very desirable, Mr. Perkins, in view of this very sweeping and preposterous statement. The proposed measure is the result of years of hard work and careful study and its various phases have been considered at many a conference of boards of health—and so far the only intimation that anyone has received that the proposed law is objectionable to boards of health, is the bare statement in Mr. Perkins' letter. It is peculiar that he should know of this opposition—and no one else have any inkling of it. Has Mr. Perkins, unbeknownst to the Committee of One Hundred, taken such an intense interest in this movement that he has, of his own volition, corresponded with all the boards of health in the country and learned what no one else has been able to discover—that they are all opposed to it? It is queer. Write to Mr. Geo. C. Perkins, United States Senate, Washington, D. C., and ask him why he thinks the boards of health oppose it. Also, stir up your own board of health and see what they have to say on the subject.

Some comment and some criticism are necessarily called to an article which appears in this issue of the

GOOD WORK.

JOURNAL from the pen of Dr. Crawshaw, of Hanford. But in the first instance we must commend most highly Dr. Crawshaw's efforts in the matter of the prosecution of an illegal practitioner, a Chinaman, in Hanford. It is energy of this sort that goes to make a better standard and to secure from the public more respect for the medical profession. Dr. Crawshaw, however, like probably 99% of physicians, is somewhat in the dark as to the facts involved; it is easy to say "let us do so-and-so," but when you come down to the practical side of it, it is not so easy to determine just *what* to do or *how* to do it. As pointed out in a report from the Board of Examiners, read at the recent meeting of the State Society by Dr. Barbat, there has never been any systematic effort made to prosecute illegal practitioners or prevent their beginning practice, and this is true of the whole period from 1876 to date. It was in 1907 that the duty of upholding the medical practice act was placed in the hands of the Board of Examiners; up to that time the law had made it the duty of local prosecuting officials who, of course, did not know anything about the law and so never prosecuted. After 1907 the board, while required to uphold the law, was given no means by which to do so and thus the possible activity of the board as such was negated. All its income was consumed in defending suits against the law. In spite of that fact, and through the personal energy of certain individual members of the board, considerable sporadic work in the direction of the prosecution of illegal practitioners was performed during 1907, 1908 and 1909. Such work, however, is, in the long run, of little value for it stops with the loss of interest of the individual; to be effective, the effort should be continuously sustained. Some one in every county of the state must ever be on the watch for violations of the law; that seems to be obvious. It also seemed to the board, last August, that the best possible arrangement would be to secure the co-operation of county medical societies for this purpose, and therefore the first letter from Dr. Tisdale to Dr. Crawshaw was to that effect. There was nothing new about it; for some years various county medical societies had been helping in the work. It is not always safe to condemn without due consideration, and Dr. Crawshaw's letter of July 30th reached the office of the Board of Examiners just at a time when it is the busiest—preparing for the heavy August examination, and everybody is swamped with work; letters sometimes have to wait before they are answered.

It has been pointed out more than once in the JOURNAL that few lawyers and almost no physicians really know anything about the medical practice law or the decisions pertaining to it. That is true of most prosecuting officers. It has

MORE ON THE SAME.

been decided by the Supreme Court of this state that a license to practice medicine is not a piece of property belonging to the licensed physician; it is merely a police permit, subject to revocation at any time.

In consequence it is not a duty of the Board of Examiners to prove that John Doe is *not* licensed, but it is the duty of John Doe to prove that he is licensed by producing a certificate if he has one; failing this he is an illegal practitioner. Ignorance of this decision (known as the Boo Doo Hong case) occasionally leads a prosecuting attorney to subpoena the board to produce the records in court and show that the accused is not licensed. This is wrong because the records are most valuable, are constantly needed in the office and furthermore should never be subjected to the possible danger of loss or damage in transporting them from place to place. The records of the office show that all correspondence in this case of Dr. Crawshaw's was properly attended to. The matter was referred to the attorney for the Board of Examiners and he reported that the local prosecuting attorney was doing everything necessary and was quite willing to attend to the case. What more could be asked? Dr. Crawshaw exhibits a great deal of righteous indignation that the proposition should have been made to get some young lawyer and pay him the fine assessed. He evidently does not know that practically every prosecution in the state has been done and paid for in exactly that way and that the arrangement is entirely satisfactory to every attorney who has done the work. There is nothing "extraordinary" about it and there are plenty of lawyers of large "calibre" who are quite willing to do the work on that basis. Dr. Crawshaw's plea to each and every practitioner in the state "to get busy" is good; if they will all do so and petition the legislature in no uncertain manner for a small appropriation to carry on the work, a great deal can be done; without funds or machinery the board is helpless. The machinery is now in process of construction and in a few months will be in condition to begin operating; but it takes time to build up something that will cover the entire state and that will continue in operation and not work merely spasmodically and sporadically.

The worst offenders are not the few men who have settled down here and there and are practicing

THE WORST QUACKS.

without a license; they are the licensed physicians who have chosen to prostitute their profession to quackery. Dr. Crawshaw refers to Fer Don, a notorious advertising quack; but this man is always able to find some licensed physician to travel around with him and write prescriptions, etc. Once or twice it has happened that evidence against him was secured, but then it developed that the victims would not prosecute on account of the trouble and publicity. And so the board is condemned in that instance, when no blame should attach to it. A good deal of complaint has come in about Chamlee, the advertising cancer-cure quack. But this man also is a licensed physician and some years ago the board attempted to revoke his license on account of his advertising. The case was appealed to the Supreme Court of the state and the board was not sustained, the court holding that the advertisements of Chamlee were within his legal rights. Still, a great many people, not knowing

these facts, want to know why the board does not stop this advertising and a lot more of the same sort; the board *cannot* stop it. Practically all the advertising quacks are licensed physicians or have licensed physicians in their employ and there is no way of either stopping them or having their licenses revoked, under our laws. We did succeed in getting a conviction against one such man for obtaining money by false pretense (J. J. Arberry) and the case is now on appeal. He was sentenced to two years in San Quentin and if the verdict sticks we may be able to get some more of this class. Furthermore, through the efforts of our attorney, in a civil action, the money paid to Arberry was restored to the victim. As to the comment on the financial side of the board's affairs, the report from our members, presented by Dr. Barbat at the recent meeting, gives all the information to be desired. It costs nearly the whole income of the board to pay its operating expenses. It costs a good deal to do anything, but a great many people seem to forget the fact. Two-thirds of the work done in the State Society office is of a nature connected with the general work of the Society and the accommodation of the members—and it costs money; but if the Society exists for anything it certainly is supposed to exist for the benefit of its members.

ETHER AND IMMUNITY.

The occurrence of post-anesthetic pneumonia and the aggravation of pre-existing infectious processes after the employment of an anesthetic may depend upon a multitude of circumstances, but in a certain number of cases it has long been suspected that the anesthetic itself, particularly ether, may by virtue of a depressing effect on the immunizing mechanism of the body, be responsible in large part at least for these conditions. Several years ago Rubin (*Journal of Infectious Diseases*, 1904, vol. I, p. 425) showed that hypodermic injections of alcohol, ether and chloroform render rabbits much more susceptible to systemic infections with streptococci and pneumococci; and other observers have obtained results which in the main show that ether lowers the resistance of animals to bacterial excitants of disease. The subject has again been recently restudied by Graham (*Journal of the American Medical Association*, 1910, vol. LIX, p. 1043) with interesting results. In this investigation, which included observations upon various manifestations of bacterial immunity, he found that the addition of various amounts of ether up to 1% exercise no applicable influence upon bacteriolysis; the same conclusion was reached regarding the action of ether upon agglutination in amounts varying from 0.1% to 2% or after an ordinary anesthesia. In the observations on phagocytosis, on the other hand, it was found that, when added to both normal human and rabbit serum in

vitro in varying amounts of from 1% to 2.5%, ether reduces markedly the phagocytosis of streptococci. A similar effect was observed after an ordinary ether anesthesia, both in the human subject and rabbit. This effect was also noted with the pneumococcus, staphylococcus pyogenes aureus, bacillus coli communis, and the typhoid bacillus.

Rather interesting in connection with this study is the demonstration that this reduction of phagocytic power of blood after an ordinary ether anesthesia may continue over periods of two days' to several weeks' duration. This is apparently due to a direct effect of the ether on both leukocytes and serum, and not to any effect on the bacteria. Whether this is due to the mere presence of the ether in the blood, which does not seem rational, or whether the ether induces physical or chemical changes, or possibly both, which seems more likely, the exact manner in which this depressing effect of the ether upon the phenomenon of leukocytosis is brought about is not yet clear. In this connection, however, the hypotheses of Meyer (*Arch. f. exper. Path. u. Pharmak.*, 1899, vol. XLII, p. 109 and 119) and Overton (*Studien über die Narkose*, Jena, 1901) that the anesthetic action of the fat-solvent drugs depends on their mechanical affinity for the fat-like substance of the body, is most interesting and suggestive. And with this in mind, Graham conducted a series of experiments to determine whether or not the fat-solvent quality of the ether is essential in the mechanism of phagocytic depression. The problem was approached by first determining the effect in vitro of the addition of a fat-like lecithin to blood the phagocytic power of which had been reduced by the admixture of ether; and from these experiments Graham found that the addition of lecithin or olive oil to blood whose phagocytic index had been reduced by ether resulted in a prompt restoration to its normal function in this respect. He also found that ether to which lecithin or olive oil had previously been added no longer exercised a depressing phagocytic action upon normal blood. It was found, however, that more olive oil was necessary than of lecithin to prevent this action. The introduction of olive oil into the rectum (5 oz.) of patients after ether anesthesia resulted in a restoration of the phagocytic function into its pre-anesthetic condition in from three to six hours, whereas otherwise the period of depression lasted as stated above a number of days.

At the present time it is impossible to forecast the practical possibilities of this most suggestive experimental study, but it is full of hints for original investigation in the direction of bedside medicine or along the byways of purely academic interest.

STATE SOCIETY MEETING.

For reasons already given, only a fragmentary account of the meeting of the State Society at Sacramento can be published this month. The meetings of the Certified Milk Commissions, the Public Health Association and kindred bodies on Monday, were well attended and presented interesting and profitable programs.

On Tuesday morning the first session of the Fortieth Annual Meeting of the State Society was called to order at 10 o'clock by the President, Dr. James H. Parkinson. Before the close of the first morning session nearly 150 had registered in attendance, and thus the meeting was most successfully inaugurated.

The Mayor of Sacramento, Hon. M. R. Beard, made a happy address of welcome to Sacramento, and in the name of the County Medical Organization, Dr. G. W. Dufficy welcomed the visiting members in a few well chosen sentences.

The President's address was received with enthusiasm and was referred to the House of Delegates to consider his recommendations.

Reports on medical education, preliminary education, the history of medical education in California, the work of the Board of Examiners and kindred topics were read by Dr. Thos. W. Huntington, Dr. Emmet Rixford, Dr. W. Jarvis Barlow, and Dr. J. Henry Barbat. All of the papers on the program for this session were read, except Dr. Bering's, which was read on Wednesday morning. Dr. Bering's paper was in the nature of a plea for a State institution for the treatment of those addicted to alcohol or drug habits, and was enthusiastically discussed by a number of those present, and a recommendation to the House of Delegates was presented and referred to that body.

On Tuesday afternoon two sections were running simultaneously, the Genito-Urinary, and the Eye, Ear, Nose and Throat sections. Both had excellent attendances, and the Eye and Ear program furnished material that was so extensively discussed that it had a special session on Wednesday morning in order to complete the papers set down.

The general session on Wednesday morning was of great interest to all and the symposium on tropical diseases, with lantern slides and microscopical specimens, held a very large attendance until long past the hour of noon.

Dr. W. A. Clarke, of San Leandro, brought two patients with pellagra. Unfortunately the full program could not be completed and four or five papers were passed.

From the way in which good papers are presented

in increasing number each year, it is apparent that the time will soon arrive when two or more sections will have to be run simultaneously during the three days' session, with but one or two general sessions in the morning. The experience of Wednesday was repeated on Thursday; the surgical symposium was so excellent that the discussion developed consumed a great deal of time, with the result that some papers were crowded out.

The Entertainment Committee did itself and Sacramento proud by the way in which the comfort and entertainment of the visiting members and ladies were looked after. Tuesday afternoon there was a reception and tea at Dr. Parkinson's house, the ladies of Sacramento doing the honors in the enforced absence of the distinguished host. That evening there was a reception and smoker at the University Club, where music and refreshments were provided. Wednesday afternoon an ample number of automobiles were provided by the professional and lay citizens of Sacramento, and all those in attendance were given a delightful ride to Folsom. The weather was ideal for the trip. Thursday night a formal reception to the President and members of the State Society was given by the County Medical Society, an elaborate musical program having been arranged. The kindness, tact and courtesy of the physicians and citizens of Sacramento will not soon be forgotten.

The House of Delegates transacted a large amount of business in the two sessions held Tuesday and Wednesday nights. On the first night only the various reports of President, Council, Secretary, Editor, etc., and some resolutions and other matters of new business, were introduced. All these were referred to a special committee consisting of H. Bert. Ellis, Los Angeles; Stanley Stillman, San Francisco, and W. J. G. Dawson, Eldridge. On Wednesday night this committee reported with its various recommendations. The most important matter before the Society, the continuance of the plan for malpractice defense, which was inaugurated by the Council July 1st, 1909, was approved and continued permanently. Other details of the meeting will be reported in full in the June JOURNAL.

Santa Barbara was selected as the place for the next meeting, and the following officers were elected:

President, Jno. C. King, Banning; First Vice-President, A. B. Grosse, San Francisco; Second Vice-President, J. Henry Barbat, San Francisco; Secretary, Philip Mills Jones; Council, Second District, Geo. H. Kress, Los Angeles; Sixth District, C. G. Kenyon; Eighth District, Jas. H. Parkinson; At Large, F. M. Pottenger.

ORIGINAL ARTICLES

A CASE OF LEPROSY IN SAN FRANCISCO PREVIOUSLY UNDISCOVERED.*

By WILLIAM FITCH CHENEY, M. D., San Francisco.

A boy came to the Medical Clinic of Cooper Medical College, January 29, 1910, complaining of swelling in his face, hands and feet, and of sores on his legs. The condition resembled one of myxedema, and he was sent into the ward of Lane Hospital with that as the probable diagnosis. At the hospital the following history was elicited:

Family History. He said his parents were both living and well, but we were never able to see or examine them. He had had fifteen brothers and sisters, of whom ten were living and well, the others dying in infancy. While he was in the hospital one of his brothers came to see him, and although we had no opportunity to examine this brother, his facial appearance was observed to be very much like that of the patient.

Past History. The boy was 18 years old. He was born in Mazatlan, Mexico, and had lived there until he was seven, then coming to San Francisco with his parents, where he had lived continuously ever since. Since he was ten he had worked in an art glass factory, until recently his illness had incapacitated him. The patient always had good health until three years before presenting himself. He never used alcohol or tobacco and denied all venereal infection.

Present Illness. Three years before the boy began to feel tired and lazy and lost all ambition for work. He noticed that whenever he perspired, his face would become covered here and there with red spots, which would remain for an hour or two before fading away. Two years ago his right shin developed running sores and became swollen. A little later the left shin acquired the same condition. These sores would partly heal and then would relapse and had never entirely disappeared since they began. About this same time his face and hands became swollen and had remained so ever since. At times his face seemed to be more swollen than at others. His fingers felt stiff and clumsy, and this had finally made him unable to do his work. His hair had become very dry and thin, and his eyebrows and eyelashes had gradually fallen out. His appetite was good and he had gained about twelve pounds in weight during the three years of his illness.

Physical Examination. The patient's face (see Fig. 1) appeared swollen and puffy, so that his eyes were small and his malar prominences exaggerated. There were no eyebrows present and no eyelashes. Although the subcutaneous tissues appeared edematous, there was no pitting on pressure. The nose was flat and broad, the nostrils and upper lip red



Figure 1.

and inflamed. The lips were thick and everted, but showed no lesions. The lobes of the ears were likewise thick and apparently swollen. The tongue was clean; the teeth regular and showed no Hutchinson abnormality; the gums showed a yellowish discharge along the junction with the teeth and bled easily on pressure, but were not swollen or spongy. The pharynx showed no abnormality. The hair over the scalp was dry and the scalp showed thick scales of dandruff. The neck showed no enlarged cervical glands. There was no visible or palpable abnormality in the thyroid. The hands were apparently swollen, but did not pit on pressure. They were short, broad, stubby, and the normal contour on dorsum and palm was entirely destroyed. The fingers were thick, clumsy and stiff. The skin over them, as over the rest of the body, was dry, scaly and glistening.

There was no abnormality in contour of the chest, the sides moved equally, there was no percussion dullness over either lung, anteriorly or posteriorly, and the breath sounds were normal throughout. The heart showed a diffuse impulse, visible in the second, third, fourth and fifth intercostal spaces, between the sternum and the nipple line; the left border of dullness was found in the nipple line, the right border at the right border of the sternum, the upper border at the upper border of the third rib; a systolic murmur was heard at all parts of the heart, but loudest at the base, over the pulmonic area; the second sound was everywhere clear.

The abdomen showed no abnormality in contour. The liver dullness measured 9 centimetres in the nipple line. The spleen was decidedly enlarged, its area of dullness in the anterior axillary line measuring 13 centimetres and its lower edge being distinctly palpable 3 c.m. below the costal margin. The abdomen otherwise was negative.

Genitalia. There was no pubic hair present. The penis and testicles were small, undeveloped and infantile in type.

* Read before the Cooper College Science Club, February, 1910.



Figure 2.

Lower Extremities. (See Fig. 2.) Over the right leg, between knee and ankle, were numerous ulcerations with granulating base; about the knee were several scars of healed lesions, one the size of a dime, comparatively recent, purplish red in color; other smaller scars, evidently older, were white; the fresh ulcers were particularly along the crest of the tibia and the skin between them was everywhere scaly, covered with crusts and showed remnants of an ointment recently applied; one of the ulcers was as large as a quarter dollar, but most about the size of a dime; all the fresh ulcers showed exuberant granulations and all seemed exquisitely tender. The left leg showed a condition very similar to that of the right, with numerous fresh ulcerations and healed scars of older ones, all lying along the tibial crest and about the internal and external malleoli. The feet appeared swollen and thickened like the hands, but showed no edema and no ulcerations.

Nervous System. There was no loss of superficial or deep reflexes; no anesthetic areas could be found anywhere over the body; there was no loss of power; and there was no pain except when the ulcers were touched.

Diagnosis. With such subjective and objective evidence the interpretation of its meaning presented only three possibilities: myxedema, syphilis, and leprosy. In favor of myxedema was the appearance of the face and hands, which seemed almost diagnostic; the dry scaly skin and scanty hair; and the condi-

tion of infantilism, both physical and mental. But at the first examination it was clear that the case must nevertheless be something more than myxedema, because of the enlarged spleen and the ulcers on the legs, for which atrophy of the thyroid gland could in no way account. As regards syphilis, the ulcers along the tibiae appeared characteristic of the disease, and there was a positive Wasserman reaction to give further support to such a diagnosis. But there was no history of primary or secondary lesions; no marks were found to speak for such previous lesions; no spirochetæ could be found in scrapings from the leg ulcers; and syphilis would not explain the remarkable appearance of the face and hands. In favor of the diagnosis of leprosy, the facial appearance of leontiasis, the absence of eyebrows and eyelashes, the red and irritated nostrils and upper lip, the rough, dry and scaly skin, the enlarged spleen, the infantile genitalia and lack of pubic and axillary hair, the chronic ulcerations on the legs—all spoke most positively. The Wasserman reaction was not inconsistent with leprosy, for it may be found in this disease as well as in syphilis. Finally, smears from the nasal secretion showed lepra bacilli in abundance and by this means the positive diagnosis was made.

With the diagnosis thus definitely proven, some other findings during the observation and study of the case became of interest. The body temperature showed a range from 98° each morning to 99° or 99.8° each afternoon, a low grade of fever such as would be expected with a chronic infection. The blood showed: hemoglobin 60 per cent; red corpuscles 5,000,000; white corpuscles, 16,000; polymorphonuclears 65 per cent, small mononuclears 20, large mononuclears 2, Eosinophiles 12, basophiles 1; another count made several days afterwards by a different observer gave practically the same figures. The urine always showed a light cloud of albumen, with a few pus corpuscles and transitional epithelial cells; but no casts and no blood. X-ray plates showed a normal condition of the bones in hands and feet.

The report from the Nose and Throat Clinic on the patient's condition was as follows: "Pharynx normal; tonsils small, irregular, buried; nasopharynx shows a small adenoid, partly blocking both sides; posterior end of both turbinates large; on right side, passage is small but open; on left side, passage is entirely blocked; mucous membrane of posterior nares is clean, of good color and shows no ulceration; anterior nares blocked with blood clots; no perforation of septum; on both sides of the septum the mucous membrane is roughened, either from ulceration or crusting; the middle and superior turbinates on the left side are practically gone; the middle turbinate on the right side is nearly gone; the inferior turbinates are hypertrophied; no evidence of active ulceration."

As soon as the diagnosis of leprosy was made, the boy was sent to the Detention Hospital, where he now makes his home with others of his kind, under the care of the city.

Discussion.

Dr. D. W. Montgomery, discussing:

There are several interesting points about this case. One is the occurrence of that preliminary mottled erythema of the face. These preliminary erythemas are very interesting in leprosy. They may precede by a long time the outburst of the more serious forms of the disease. Sometimes, I believe, they constitute the whole extent of the leprosy. That is to say, a man will get an erythematous lepride and stop at that. This erythematous lepride sometimes consists of only one spot. I recall, in this regard, a young man who had but two spots of erythema,—one an anesthetic area on the cheek, and another raised, red anesthetic spot on the right forearm. From the spot on the right forearm there developed an infiltration of a nerve; the infiltration extending, as is usual in leprosy, from the periphery toward the center. This infiltrated nerve cord was one of the branches of the radial nerve, and was whipcord-like and somewhat nodular. That boy was given salol for a long time and the symptoms decreased; it would not be surprising if they had disappeared entirely. One of the Bint boys had this form of erythema only. The boy is living and well to-day, and that was eighteen or nineteen years ago. His mother had an erythematous lepride of the face, and that was all she ever manifested. In the Chinese quarters of the Almshouse a few years ago they often gave the history of an erythematous lepride long preceding the outbreak of the more serious forms of the disease. There is, sometimes, in some cases, a generalized erythematous eruption all over the body, simulating an urticaria. That was exemplified in a Swede in the Almshouse who got his leprosy in the Hawaiian Islands, and then went back to Portland, and from there to Paso Robles, to get rid of a supposed urticaria, which turned out to be a lepride. There were "peacock eyes" all over the skin. He looked as if he had been tattooed.

The infection or inoculation of leprosy precedes usually, I am convinced, a long, long time the outbreak of symptoms that attract serious attention, and in the case in hand the fact that the patient came from Mazatlan is presumptive evidence that he got his disease there. It is more likely that he got it there than that he developed it here, although I know of a case where the disease developed here. This was the case of an Irish woman, the only case I know of where leprosy undoubtedly was acquired and developed in this city.

Among the Chinese there are frequent cases that have been quite a long time, often several years, in San Francisco before the disease develops, but in all those cases I have examined there was a previous residence in China, and therefore the possibility, even probability, that their malady really had its inception during their residence in China. All the Chinese whom I have examined on this point have come from the See Yup or Sam Yup villages on the right bank of the West River, where leprosy is prevalent. All of them, without exception, have come from that particular locality. They generally gave the history of having had some red spot that was dead, anesthetic, and then getting a solid edema, such as there is in this case, and after that the leprous nodules. The skin of the legs in lepers has a tendency to become smooth and to be cut up into lozenge-shape areas, and to become darkened and very thin, and easily

lesionable, and these people can easily get an eczema or ulcers. That is explained by the lack of nutrition. That peculiarity of the legs is a very striking one. The soles also become dry.

Hansen has said that the ordinary quarantine established by the European in ordinary life is sufficient to prevent any inoculation whatever. The ordinary segregation of towels and washing is sufficient to form a barrier that the leprous infection cannot get over. The only country in the world where the better classes have leprosy is, I believe, Brazil. Very few of the Norwegian lepers who came to Minnesota transmitted the disease to their offspring; as soon as they got into better quarters, leprosy disappeared.

Dr. Alvarez: The confounding of myxedema and leprosy is certainly pardonable. It has been known for many years that the lesions of leprosy can sometimes be cleared up almost entirely with thyroid extract.

Walter Brinckerhoff has lately published the results of a careful examination of the nasal mucous membrane and secretions in some 407 Hawaiians. The investigation was taken in the hope that a means of earlier diagnosis might be found. He was disappointed, however, as the percentage of positive findings in early cases was very low. He and others have found acid-fast bacilli in the noses of non-leprous patients, so we must demand their presence in considerable numbers and characteristic grouping before a positive diagnosis is made. The suggestive Wasserman reaction in this case is not strange considering the several points of similarity in the infectious granulomata. A large proportion of lepers react to tuberculin.

Dr. Oliver: I examined the sores in this case and was unable to find any lepra bacilli or spirochetæ pallida present. The nasal discharge showed plenty of lepra bacilli which were quite characteristic in morphology. The Wasserman reaction was what we might call nearly positive; that is, there was a slight hemolysis. If these ulcers had been syphilitic the Wasserman would have been positive.

Dr. Herbert Gunn: Regarding what Dr. Alvarez has said concerning the Moro and Wasserman tests, tuberculosis and syphilis very frequently occur with leprosy. With regard to the skin lesions of the leg, I have seen them repeatedly and they usually start in with an eruption of bullæ. The bullæ appear and the lesions may then ulcerate, but generally dry up and disappear. Frequently, however, they go on to considerable ulceration; usually they are hypersensitive as in this case. So far as the boy having contracted the disease here, I should imagine that he got it in Mazatlan, because frequently cases do not develop for eight or nine years after infection. Furthermore this boy probably had symptoms for some time before attention was called to them. He probably had an erythematous eruption which may have occurred many years ago. The period of incubation would therefore not be over six or seven years. Dr. Clark asked a question with regard to the puffiness present here and the nodular appearance. Following the erythematous condition very frequently we have a thickening of the entire skin, so we have just this appearance of puffiness without there being any nodules present at all. In fact from his appearance I should not call him a case of nodular leprosy but a case of skin leprosy.

HISTORY OF A LAWSUIT FOR ALLEGED MALPRACTICE.

By HENRY J. KREUTZMANN, M. D., San Francisco.

Customs and laws in every place,
Like a disease, an heirloom dread,
Still trail their course from race to race,
And furtively abroad they spread.
To nonsense, reason's self they turn,
Beneficence becomes a pest,
Woe unto thee, that thou'rt a grandson born!
As for the law born with us, unexpress'd;—
That law, alas, none careth to discern.
(Mephisto in Goethe's *Faust*.)

Part II.

A Decision of the Supreme Court of California.

Here is an exact reprint of the decision. S. F. No. 2424. In Banc. January 5, 1904:

SUPREME COURT DECISIONS.

S. F. No. 2424. In Banc. January 5, 1904.

A. H. BAILEY, JR., and HANNAH M. BAILEY,
Plaintiffs and Appellants, v. HENRY KREUTZ-
MANN, Defendant and Respondent.

Appeal from the Superior Court of the City and
County of San Francisco—John Hunt, Judge.

For Appellants—J. J. Burt.

For Respondent—Loewy & Gutsch.

By the Court.

The defendant is a physician and surgeon, and as such he examined the plaintiff Hannah M. Bailey, and pronounced her ailment to be a cystic tumor of the ovary, and ordered her to a hospital where he proceeded to operate upon her for the said ailment. After an abdominal incision and careful inspection of the parts, he discovered that the ovaries were in reasonably good condition, and, finding the uterus enlarged, concluded that the patient was probably pregnant, and sewed up the incision. The wound healed, and subsequent events proved that she was not pregnant at the time of the attempted operation. Thereafter the physicians and surgeons called as witnesses reached the conclusion, from the history of the case and all the circumstances surrounding it, that the patient's trouble was neither pregnancy nor an ovarian tumor, but was in fact a fibroid tumor of the uterus or something else nearly allied thereto. The patient and her husband brought this suit to recover \$40,000 for the said alleged unskillful and negligent acts of defendant. The verdict and judgment being in defendant's favor, plaintiffs moved for a new trial, and bring this appeal from the order denying the motion.

1. Respondent makes the preliminary objection that the proposed statement on motion for new trial was not served in time, and therefore the court was warranted in denying the motion, because there was no proper record to base it on. But it appears that appellants made a motion in due form to be relieved from their failure to serve the statement in time upon the ground of excusable neglect. This motion was granted, and thereafter the statement was duly settled and certified by the court. It was clearly within the discretion of the court to do this. *Banta v. Silla*, 121 Cal., 414. In view of the trial court's order relieving appellants from their failure to serve the statement in time, we will not presume that the new trial was refused on the ground of any delay in the service of the proposed statement.

2. Many objections are urged by appellant, but we will discuss only those errors which seem to require a reversal of the order appealed from.

On the trial medical witnesses called by defendant as experts to prove that his treatment of Mrs. Bailey was neither negligent nor lacking in medical or surgical skill were allowed in response to questions by

defendant's counsel and against the objection of plaintiffs that the same was incompetent and hearsay, to recite instances from medical reports and authors illustrating the difficulties which attend a diagnosis under the circumstances developed in the case of Mrs. Bailey. For instance, Doctor De Vecchi was permitted to say: "I refer to some reports in the *Annals of Medicine*, which prove the difficulty of making a diagnosis . . . Professor Reverding, of Geneva, who is considered one of the most eminent surgeons of Geneva, once examined a woman; he could not make a diagnosis, but he suspected pregnancy, which diagnosis he doubted after the absolute assertion of the woman that it was impossible that she should be pregnant. He sent the woman to a hospital in Geneva, where the physician, after a careful examination and questioning of the woman, decided to wait for a while, under suspicion of pregnancy, and after a month or two an abdominal opening was made, and they found a pregnant uterus of six months."

Another physician testified: "I think you will find it in a book. Spencer Wells, when asked what class of tumor he was dealing with in an operation he was about to perform, said: 'I have stopped guessing; I will tell you when I open the abdomen.' That was after he had performed one thousand operations. He was the greatest author on abdominal tumors." There were many more of these illustrations and recitals from standard authors, living and dead, but the above quotations are sufficient to illustrate the point. It has been held, without conflict and in an extended line of cases in this state, that medical works are hearsay and inadmissible in evidence except perhaps on cross-examination when a specific work may be referred to, it seems, to discredit a witness who has based his testimony upon it. *People v. Wheeler*, 50 Cal., 581; *Gallagher v. Market Street Ry. Co.*, 67 Cal., 13; *Lilly v. Parkinson*, 91 Cal., 655. In *People v. Goldenson*, 76 Cal., at page 348, it is said: "Dr. Wolsey, one of the experts called by the defense, was asked to name the circumstances of the cases he had read where violence accompanied hysterical mania, and the court sustained an objection to the question. If allowed, the examination would have been in effect the introduction of medical works in evidence, and therefore it was properly rejected." It must be taken as the settled rule in this state that medical books are not admissible as evidence except in the instance already specified. If the books themselves are hearsay and inadmissible, certainly any recital of their contents or the substance thereof is none the less hearsay, and should be excluded for that reason. It is apparent that the plaintiff's case may have been materially prejudiced by the erroneous admission of this evidence.

3. At the request of respondent the court instructed the jury as follows: "The defendant in this action is not charged by the plaintiffs with any lack of general skill or competency as a physician and surgeon. This amounts to an admission, and you are bound to hold accordingly that the defendant was possessed of that ordinary medical and surgical knowledge and skill which the law requires him to possess; there being no degree other than that of ordinary knowledge and skill recognized by law as a standard or applicable as a measure of knowledge and skill in such cases."

This instruction was erroneous, and should not have been given. The plaintiff charged the defendant with negligence and want of skill in treating her, and should have been left to argue to the jury that the facts presented showed that the defendant was lacking in the skill usually possessed by a physician and surgeon.

The order appealed from is reversed.

The decision of the supreme court is final, we have to submit to it; but that does not mean that a

decision of the supreme court must be correct, free of error. A fair criticism is necessary for the development of medical jurisprudence. The gentlemen of the supreme court are not infallible. There are instances on record where the supreme court of California reversed itself. Courts of last resort are instituted not because we believe in their infallibility, but in order to exclude as much as possible error in the execution of the laws. It may justly be asked that a decision of the highest tribunal in the country, destined to go down to posterity as "authority," be strictly in conformity with the evidence furnished at the trial; that the language of it be clear; that the argumentation be logic. I shall point out in the following lines where in my opinion this supreme court decision does not come up to these requirements.

I have first to say a few words about the exposé, the narrative of the case by the supreme court. It is said there, "defendant . . . ordered her to a hospital . . ." There is no evidence in to show that I ordered Mrs. Bailey to a hospital. Physicians advise their patients to go to a hospital, and that is precisely what I did in this case.

When the abdomen was opened and everything exposed to view it did not require "careful inspection of the parts" to "discover" that the ovaries were not the seat of the trouble—I could see that at a glance. The words, "the ovaries were in reasonably good condition," or some similar words, are the language of plaintiffs' attorney, J. J. Burt; this man would ask every expert witness *usque ad nauseam* the same nonsensical question, "Suppose that the trouble is only an enlarged uterus, no matter by reason of a tumor or pregnancy; suppose that the uterus is uniformly rounded and is about the size of a child's head; and suppose that there is nothing the matter with the ovaries; should there be any difficulty in simply determining that that is an enlarged uterus?"

"Finding the uterus enlarged, concluded that the patient was probably pregnant." I have never stated that the woman was *probably pregnant*; I have given clear, concise testimony, not contradicted, that I could not positively say that this was not a pregnant uterus.

The sentence: "Thereafter the physicians . . . allied thereto," needs some explanation. A large number of physicians and surgeons were called as witnesses during the trial, "thereafter," and much contradictory testimony was given. Dr. Friedholfer and myself testified about Mrs. Bailey's condition at the first examination (under anesthesia); Mrs. Dr. Edson gave evidence of her "diagnosis" of Mrs. Bailey's trouble at about the same time. The evidence of these three physicians and surgeons was contradictory. At the time of operation Dr. Putnam and myself testified that we could not decide what that thing was, that the possibility of pregnancy could not be excluded; Mrs. Dr. Edson says she saw the patient shortly before the operation and swore that Mrs. Bailey had a fibroid of the uterus; here again contradictory evidence.

The physicians and surgeons called "thereafter"

as witnesses by defendant had never examined Mrs. Bailey and could not and did not make any conclusions about her condition. The physicians and surgeons called by plaintiff "thereafter," that is, after the performance of the incision, and the healing, were Dr. Carl von Hoffman and some other man, whose name I have forgotten (he died since in an insane asylum); now these two men could not reasonably and did in fact not testify about the condition of the patient at time of first examination nor at time of operation. Neither "from the history of the case and all the circumstances surrounding it" could they possibly say what was present a year and more ago. But they were not even asked about *facts* other than what they found at their own examinations long after the operation; Mr. J. J. Burt asked them: "If the conditions, as you found them, were present at the time of examination under chloroform, or at the time of operation, was it easy or difficult to make the diagnosis of fibroid of the uterus?" This all-important question, "Was it easy or difficult to diagnose the trouble?" this question upon which everything was hinging in this case, on which the whole suit was based—this question is not touched upon with a single, solitary word in the exposé by the supreme court.

The suit was not brought to recover \$40,000 for "the said alleged unskillful and negligent acts of defendant," but suit was brought to get \$40,000 for damage which it was alleged was done to plaintiff through "alleged unskillful and negligent acts"; the alleged damage consisted in "mental worry and anguish before operation and pain and suffering after operation."

Ad. 1—Motion for a new trial was based on the ground that "the evidence did not justify the verdict"; besides, as usual, a number of alleged errors of ruling by the presiding judge were thrown in. The *law* requires that within twenty days the necessary papers must be filed with the court. Ten days' additional time was added by request of plaintiff's lawyer through professional courtesy of defendant's counsel. Absolutely nothing was done during all this time. According to *law* the case was out of court, dead at the expiration of the thirty days. After some time plaintiff's attorney went before Judge Hunt and asked for relief from failure to file the papers in the time prescribed by *law*, on the ground of "excusable neglect," alleging besides that an oral agreement was made with defendant's counsel for further delay. Dr. Gutsch in an affidavit flatly contradicts any such allegation, but Judge Hunt allowed Mr. J. J. Burt to file the papers and to bring in his motion for a new trial. Judge Hunt thus revived the dead issue, compelling defendant to spend hundreds of dollars more, by an arbitrary act neglecting or setting aside the *law* in the premises. It was expected that the supreme court would insist on the strict observation of the *law*. But the supreme court says that it was "within the discretion" of the trial judge to act as he did. That another judge in another case likewise neglected the observation of the *law* does not

appear, to a lay mind, as a justification: two wrongs make no right!

Ad. 2—The contents of the second paragraph of the decision are of greatest interest to the medical profession, since here the somewhat tangled and perplexing question of medical expert testimony is taken up, discussed and an attempt made to throw some light on this matter. If we read this paragraph carefully we must say that the law is well laid down here:

1—"Medical books are not admissible as evidence; are hearsay."

2—"Any recital of their contents or the substance thereof is none the less hearsay and should be excluded."

This matter was fully discussed and well understood at the trial. The question is, What is the recital of the contents of a book? The supreme court illustrates this point very well by quoting decision in *People vs. Goldenson*. "Dr. Wolsey was asked to name the circumstances of the cases *he had read*." It may reasonably be said that a person can recite a book or the contents of a book only after having read it, as in Dr. Wolsey's case. No books were admitted in the trial of the suit *Bailey vs. Kreutzmann*. No recital of a book or its contents was likewise admitted in this trial. Dr. de Vecchi has not stated that he *read* Professor Reverdin's case in a book; it is left undecided whether Dr. de Vecchi was not present at the clinic of Professor Reverdin while this case was observed, or whether Professor Reverdin related the case to him and that this case has since become a matter of history. But it is perfectly evident that Dr. de Vecchi had knowledge of this case and of other similar cases and from the vast amount of his knowledge he was drawing while giving testimony. Unfortunately he used the expression "*Annales of Medicine*," by which is meant *History of Medicine*; the supreme court apparently mistakes *Annales of Medicine* for a medical book.

Dr. Thorne did not start his testimony with the remark, "I think you will find it in a book," as printed in the decision. Dr. Thorne gave testimony and when he was through he said, answering some remark by plaintiff's counsel, "I think you will find it in a book." Dr. Thorne did not say *that he read it in a book*. His very last words, "I think you will find it in a book," show conclusively that his knowledge of what he said was not from *reading a book*; probably Dr. Thorne was present when Spencer Wells made that remark; possibly it was printed. Like Dr. de Vecchi, Dr. Thorne draws from his large knowledge and gives this testimony on his own authority. To interpret the words, "I think you will find it in a book," as reciting the contents of a book must appear to stretch a point rather violently. Not one of the other medical gentlemen gave evidence of any case that he *had read in a book*.

From the fact that the supreme court excludes testimony which is not recital of a book; from the stress that is laid by the supreme court on "hear-

say," it seems as if the supreme court goes beyond books and recital of contents of books in excluding medical testimony. The supreme court seems to uphold the general rule of hearsay also in the case of medical expert testimony; that is, only such evidence is admissible which is gained by observation of facts with one's own senses of perception. Anything that is not as a fact known by own observation to the medical expert must be excluded as hearsay. If this ruling should obtain, medical expert testimony other than about facts of the case will be an impossibility.

How do we acquire our knowledge and become experts? We are not able by any means during the time of our study to acquaint ourselves personally with every fact in anatomy; few of us have dissected or even seen every muscle, ligament, fascia, nerve, artery, etc., in the human body; not to speak of physiology and pathology. We have learned from books and from lectures of our teachers to a great extent. The same holds good in pharmacology, medicine, surgery, obstetrics. We learn many things from books and lectures; the action of drugs, diseases, their treatment, without ever having witnessed any of the diseases or their treatment, or the action of the drugs. Later we add constantly to our knowledge by reading books and periodicals, by visiting meetings of medical men and listening to papers and discussions, by traveling, seeing and hearing the masters of our art. In this way we acquire a large stock of knowledge of things we have not with necessity seen ourselves. We are ready to make use of this knowledge in our practice whenever occasion arises; in many instances we do not know any more from where we have the knowledge. If asked we might say, "I think you will find it in a book." Now, when we are on the witness-stand are we not allowed to draw from this our knowledge? According to this decision of the supreme court: No! The result of such ruling is that the testimony of educated men, real experts like Dr. de Vecchi and Dr. Thorne is not admitted.

In conjunction with this matter of expert testimony, I wish to call attention to some practices of the courts, sanctioned by the supreme court: Any physician who holds a license to practice medicine in California becomes *eo ipso* a medical expert before the law; a physician may, while at college, never have witnessed, never have handled a case of confinement, but as soon as he has the license he becomes an expert in obstetrics; his testimony is expert testimony before the law. And so it comes about that an ignorant pretender, who never performed any gynecological operation, is an expert in gynecology before the law and her testimony is admitted as expert testimony.

That the question of what is admissible as medical expert evidence and what not is not quite clear to the lawyers who compose the supreme court of California, becomes evident when we read in the decision the following sentence: "Medical works are hearsay and inadmissible in evidence *except perhaps in cross-examination when a specific work*

may be referred to, it seems, to discredit a witness who has based his testimony upon it." To base one's testimony on a book can only be done by reciting the contents or substance of it, and that is inadmissible. If the recital of the contents of a book cannot be admitted, then there is no need to contradict it by evidence that is inadmissible.

One point must be mentioned yet in this decision. Plaintiff's counsel had pinned his faith for an appeal entirely and almost exclusively on the alleged fact that the evidence did not justify the verdict. Hundreds of pages of testimony were printed for use of the supreme court. Almost all of this big book was taken up with testimony bearing on the case; a few pages were devoted to alleged errors of the trial judge; the two briefs for the supreme court were likewise almost entirely given to argumentation of the merit of the case. The supreme court of California ignores absolutely the strenuous appeals of J. J. Burt, plaintiff's counsel, to consider "the merits" of the case—instead it devotes its whole energy to technicalities.

Ad. 3.—The language of this paragraph is incomprehensible to me; at no time during the trial was defendant's general skill and care questioned. Much was made by plaintiff's lawyer during the trial of the alleged fact that this simple, plain physician, Mrs. Edson, without the use of anesthetic, without the use of instruments, made the correct diagnosis, whereas the skillful physician, defendant, erred in this particular case.

I have written up this case to arouse interest in the ranks of our profession for legal medicine. We are altogether too much absorbed in ultra-scientific work, and too busy in reporting cases or series of cases of difficult operations, of latest treatments, etc. But we are acting like the proverbial ostrich in vital questions of medical jurisprudence; these questions do not seem to exist for us. I hope I have contributed a mite to arouse some interest in the matter.

PROSECUTION OF ILLEGAL PRACTITIONERS.*

By J. A. CRAWSHAW, M. D., Hanford.

In taking up the subject of the prosecution of illegal practitioners it will not be my purpose to furnish you with the law governing this offense, as it does not fall within the scope of this paper; besides the law being so plain that any one who reads it is able to understand it, makes the quoting of it superfluous.

The object I have in mind is to present before this body of intelligent men, a number of facts that I have been able to gather from various sources which I am sure should arouse us from our slumbers, and cause us as representatives of a noble and glorious profession to become more active in protecting our profession and fellow man from the onslaught of the illegal practitioner who uses us and our achievements to carry on his graft to fatten his purse and submerge the medical profession in ridicule by ex-

plotting his newly discovered process of healing or the inheritance of seven generations. If the illegal practitioner has chosen the medical profession as his scapegoat by which he can increase his dollars and cents, he can go to most any extent to perfect the fruition of his desires with the maximum amount of assurance that he will not be molested by the medical profession under their present state of activity. If he is molested he is assured that he has the sympathy of the people, and is a much persecuted man because of jealousy on the part of the medical profession. This state of affairs is a serious one and unless obliterated will be a serious detriment to those who have to conform to both the spirit and letter of the law.

When the act to regulate the practice of medicine was enacted a board of medical examiners was created whose duties are specially defined. You will find it the duty of the board to prosecute all illegal practitioners and the fine when collected shall be paid into the state treasury to constitute a special fund for the prosecution of illegal practitioners. Also that the board on or before the first day of January of each year shall transmit to the Governor a full report of all its proceedings together with a report of its receipts and disbursements. Both of these duties have been sorely neglected as I hope to be able to show as we continue.

In regard to this first duty I am going to relate my experience with the board of examiners which I believe is a fair sample of their activity in the prosecution of illegal practitioners. On the 30th of July I wrote Dr. Tisdale the following letter:

Hanford, Cal., July 30, 1909.

Dear Doctor:—

I wish to call your attention to a breach in the law governing the practice of medicine that has existed here in Hanford for the last two years.

One L. T. Sue, a Chinese doctor, has been operating in Hanford, and has no credentials or authority to do so.

Also Dr. Muriami, a Japanese, who operates under the wing of a M. D. here in Hanford. I have learned that this man writes prescriptions for patients, signs his name under the name of a regular licensed physician. These prescriptions are filled at the various drug stores in Hanford. This work has existed for one or more years. If you wish me to be of any service to you I will be glad to collect any proof you ask me to. Trusting you will see that all must comply with the law, I close.

Yours respect,

J. A. CRAWSHAW.

To this letter I received no reply whatever. About Aug. 10th I wrote to Dr. Tisdale telling him that I expected the courtesy of a reply to my letters and I would like to see as much interest shown in this matter by the state board as they showed in me when I had given a few anaesthetics for the doctors of Hanford before I had passed the medical examination. This brought the following reply from Dr. Tisdale:

* Read before the San Joaquin Valley Medical Society, March 8, 1910.

San Francisco, Cal., Aug. 17, 1909.

Dr. J. A. Crawshaw,
Hanford, Cal.

Dear Doctor:—

Your favor just received. Will say in reply that we are writing to the medical societies of the various counties in Cal., advising them to institute proceedings against illegal practitioners. Therefore any assistance you may be able to render to your county society will be of great value in the cases mentioned.

Yours truly,

CHAS. TISDALE, Sect.

It would be very nice indeed to throw the burden of prosecuting these violations of the law upon the shoulders of those not prescribed by law to perform this duty; however, it becomes necessary at times for the medical profession either individually or collectively to protect the rights invested to us by the laws governing the practice of medicine. On the 5th day of November I swore to a complaint against L. T. Sue for practicing medicine without a license. A subpoena was sent to San Francisco to be served on Dr. Tisdale to appear as witness at the trial. It was returned unserved accompanied by a letter stating that the sheriff had seen Dr. Tisdale and found that he did not live in San Francisco, but in Alameda, therefore the subpoena could not be served. This was an unlawful excuse, as all present here know that a subpoena can be served on a party wherever they may be found. I suppose Dr. Tisdale and the sheriff must have come to some mutual understanding, as the case was to be tried the day before Thanksgiving and Dr. Tisdale, like the rest of us, is not immune to taste of turkey. The trial was postponed until Dec. 5th. Another subpoena was sent to be served on Dr. Tisdale, but this time at Alameda. This summons was returned served. Dr. Tisdale ignored the summons and was not present at the trial.

After the trial I wrote another letter to Dr. Tisdale, telling him of the conviction of the Chinaman, and asking him for advice should the defendant continue to practice.

I did not receive any reply whatever from Dr. Tisdale, nor neither have I since then, but on Dec. 15 Dr. Phillip Mills Jones wrote me the following letter:

San Francisco, Cal., Dec. 15, 1909.

Dr. J. A. Crawshaw,
Hanford, Cal.

Dear Doctor:—

Your letter to Dr. Tisdale is before me, as I am the Assistant Secretary of the Board. I am delighted to know that you got a conviction in the case of the Chinese doctor in your vicinity. The Board at the last meeting appointed an attorney to take the whole question of prosecuting violations of the law, and I will turn your letter over to him at once. We will give you all assistance possible.

Cordially yours,

PHILLIP MILLS JONES, Sect.

I waited patiently to hear from their attorney while the Chinaman continued to practice. On Jan.

10 I wrote Dr. Jones again, telling him that I had not heard from their attorney; also that the board was not taking the part in prosecuting this case as was expected of it. This being plainly demonstrated by their manner of corresponding, as a part of my letters had been ignored, others had been transferred for another party to answer, and that I intended to go ahead with this case and then report to the medical society my success and how obtained.

In answer to my letter I received a letter from their Attorney, W. W. Kaufman, stating that he had been so busy prosecuting and convicting an illegal practitioner that he had neglected to answer my letter. Also that the Board was without funds to prosecute these cases, and that it was up to the district attorney to prosecute these cases when brought to his attention. But if I knew of any lawyer, preferably a young lawyer, who would be willing to take a chance in getting his fee either by the fine collected or by a special appropriation from the Legislature, to show this letter to him and ask the lawyer to communicate with him.

Just think of it, a lawyer who would be willing to take a chance on getting his fees from fines that by law must be turned into the state treasury or wait for the state legislature to make an appropriation to the Board of Examiners before he could receive his compensation! You can readily see that this would be an extraordinary method of doing business; also the caliber of the lawyer who would be willing to put in his time studying and working up a case whose prospects for compensation are as shady as this.

I also received a letter from Dr. Jones which reads as follows:

San Francisco, Cal., Jan. 12, 1910.

Dr. J. A. Crawshaw,
Hanford, Cal.

Dear Doctor:—

Replying to your letter of the 10th inst. I beg to advise you that our Attorney, W. W. Kaufman, has been very busy for some weeks past in the preparation and trial for us of a most important case and doubtless that is the reason why your communications were overlooked.

It may seem to you that we are very dilatory in not taking up the active prosecution of illegal practitioners in all parts of the state, but if you will stop and think about it, you will realize what an enormous undertaking it is. We are preparing our machinery to do this work but it will be some months before we can extend operations very much about the state. In your particular case I will again ask our attorney to look over the correspondence and advise you in the matter.

I have answered your letters and not Dr. Tisdale, for the reason that I am Assistant Secretary of the Board of Examiners, and I am here every day, while Dr. Tisdale comes only twice a week, and leaves a good deal of this work to my particular attention. Please do not think it any way a neglect on Dr. Tisdale's part; he does not refuse to answer your

letters, but I answer them for him. If you wish a personal letter from Dr. Tisdale, he will undoubtedly write to you. As I understand the case against the Chinaman Sue, he was arrested, prosecuted by the District Attorney, tried and convicted. Did he appeal this case to the Supreme Court, or to what court did he appeal it? If he took the case on appeal nothing can be done until that trial is held.

Please let me know at your convenience. You may have given this information in a previous letter but I have given all of your correspondence to our Attorney and so do not have it at hand.

Cordially yours,

JONES, Sect.

I readily saw that it would be a much harder task to get the state board, as well as my local brother practitioners active in the prosecution of this case than it would be to prosecute the Chinaman, therefore, I consulted the District Attorney in regard to the best possible way to perfect a few complaints. With his advice I procured the service of three young men to call on the Chinaman and take treatment from him. This they did and swore to as many complaints. I also hired Attorney Dyar to assist District Attorney Irwin in the prosecution of the Chinaman. It was locally known that Mr. Dyar had been engaged by, and represented the State Board of Examiners in these cases but such was not the case as I paid him for his service as I did the three complaining witnesses.

When the Chinaman was arrested his diary and a few prescriptions were confiscated, which showed for the ten preceding days he had waited on three hundred and fifty patients, mostly from Selma, Fresno, Fowler and Oleander. The patients on hearing of his arrest subscribed one thousand dollars as a defense fund and engaged Senator Cartwright to defend the chink. He was tried Feb. 16 and was acquitted, which was a surprise to those who heard the testimony given in the case. Our surprise was still more increased when it was established that at least one of the jurymen had taken some member of his family to the Chinaman to be treated. With these facts you can see the utter impossibility of a conviction in this case.

At the writing of this paper nothing more has been done except that the Chinaman is practicing in bolder defiance to the law than ever before. The District Attorney tells me that he is going to keep after him until he succeeds in convicting him or makes it so unpleasant for him that he will make his headquarters elsewhere. This we trust he will do, but before such a feat is accomplished it will be necessary for the medical profession as a whole to stand up for the rights which is offered it by the law of California, and to show to the people that our spinal columns are composed of the hardest compact bony tissue, and not the flexible cartilaginous substance, that will readily bend or mold to the layman's idea of what constitutes the practice of medicine.

In regard to the Board of Examiners reporting to the Governor on or before the first day of January

of each year of all its proceedings, together with a report of its receipts and disbursements, the following will show you how prompt and active the Board has performed this duty. On Feb. 10th I wrote a letter to State Treasurer Williams asking the following questions:

Can you tell me how many fines were turned into the state treasury resulting from the conviction of illegal practitioners during the year 1909? Can you tell me the amount in each case? Can you tell me the amount of money paid into the state treasury by the Board last year? Can you tell me how much of the special fund for the prosecution of illegal practitioners is in the treasury at present? How many times during 1909 did the Board draw money from the treasury?

To my letter Mr. Williams wrote me the following reply:

Sacramento, Cal., Feb. 14, 1910.

J. A. Crawshaw, M. D.
Hanford, Cal.

Dear Sir:—

Yours of the 10th inst. at hand. After carefully looking over the records of the State Controller's office I find that so far no report has been made by the State Board of Medical Examiners since early in 1908. The Controller's office has tried repeatedly to get complete reports from said Board, but without success. Therefore, I would advise you to communicate with Dr. C. L. Tisdale, Secretary of the State Board of Examiners, Room 927 Butler Bldg., San Francisco, Cal., from whom no doubt you will be able to get the necessary information.

Trusting that you will be able to get the information that you desire, I remain

Yours very truly,

W. R. WILLIAMS, State Treasurer.

On Feb. 8th, I wrote Dr. Jones asking him how many candidates took the examination in 1909? How many failed? How many illegal practitioners were prosecuted by the Board in 1909? How many convictions resulted and how many jail sentences?

To which I received the following reply:

San Francisco, Feb. 10th, 1909.

Dr. J. A. Crawshaw,
Hanford, Cal.

Dear Doctor:—

Your letter of the 8th inst., I find upon my return to S. F. In regard to the number of candidates who presented themselves before the State Board in 1909. In Dec., 97 applicants, 31 failed; in Aug. 139 applicants, 49 failed; April 71 applicants, 23 failed.

In regard to the prosecution of illegal practitioners, nothing was done in this connection by the Board of Examiners last year. The Board was absolutely without funds to do the work, consequently, there were no convictions and no jail sentences.

In some parts of the state the local medical

societies undertook the prosecution of illegal practitioners with more or less success. This was particularly noticeable in Sacramento where several convictions were secured and a number of men were run out of town. Last week the Board of Examiners started in to prosecute or rather to get evidence against illegal practitioners here in San Francisco. We are trying to get a system for going after this work and when it shall have been perfected here, we shall extend the work to various parts of the state. It is impossible to begin it all over the state at once.

Cordially yours,

PHILLIP MILLS JONES, Sect.

Gentlemen, you will see that the Board of Examiners have been very active, in fact hyperactive along certain lines, and hypoactive in matters more important to the medical profession. Dr. Jones' report tells us that one in every three candidates coming before the Board in 1909 failed, thirty-three and one-third per cent, if you please. All those who failed conformed to every requirement of the law, where it was possible for them to do so. They had furnished documentary evidence of their preliminary education, which must be satisfactory to the Board. They had spent the necessary time in a recognized medical college, and presented their diplomas as testimony thereto, but they failed to convince the Board that they were entitled to the rights for which they had prepared themselves. These unfortunate gentlemen have either been compelled to leave the state or prepare for and take up some other vocation in order to have a decent existence, while some vendor or quack has been permitted to practice unmolested in the same town or city and may be next door to some member of the Board of Examiners.

Fellow practitioners, we have got to get busy each and every one of us, if we receive the protection we are assured. If we can't depend on this Board to perform the duty of prosecuting offenders of the medical act, then we should see to it that we are represented by a more active body. This Board tells us that they did not prosecute a single case in 1909; that is not saying that there were none to be prosecuted. Why, Fer-Don has been all over the state advertising in nearly every newspaper, and so far as I have been able to learn he has never been approached, except when N. B. Harris was working with the Los Angeles Board of Health, told Fer-Don that he was going to prosecute him if he did not get out of town. Then Jim employed a licensed physician so that he might be able to carry on his graft.

In every San Francisco or Los Angeles newspaper will be found the advertisements of several Chinese doctors, none of whom have complied with the medical law of this state. The Board has never molested a single one of these Chinamen so far as I have been able to learn. It cannot be because their attention has not been called to it, as they are obliged to see their signs as they pass along the streets, or see their pictures when they chance to look into a city paper.

If the medical law can't be enforced, why have it? I would much rather practice by the side of a man who has had a medical education and had failed to pass this Board's examination, than to be legally classified with one of these Orientals with his "roots and yarbs."

The Board tells us that they are without funds; I suppose they have always been as they have never shown very much activity in prosecuting these cases. The supposition is that they will continue to be in the same condition as their source of revenue will be the same as it has been the whole life of the board. I find that the board received from candidates alone in 1909, seven thousand six hundred and seventy-five dollars. Of this amount the Secretary receives not more than twelve hundred dollars per annum. The other members receive ten dollars per day when the board is in session. The board meets three times in each year, making a total of nine days that the board is in session for one year's work. Thus the other members of the board receive nine hundred and ninety dollars while in actual service in the discharge of official duties. At the discretion of the board they may add to said sums necessary traveling expenses. This, no doubt, they have done.

All money in excess to the actual expenses of the Board shall be paid annually into the state treasury. They have no money in the treasury at present, and they have not paid any into the state treasury for at least two years. We are entitled to be in closer relation with the board and its transactions than we have been in the past, and it is up to the medical practitioners to see that the board performs the duties intended it by the law. It was never the intention of the makers of the law that the Board of Examiners should make the flunking of candidates a specialty, but to see that the public is not buncoed by the oily tongue of the medical imposter. This is the gravest of all medical offenses, because with it goes all other violations of the law. Little thought was given to the graduates of the recognized medical colleges, for most of them make law-abiding citizens and a useful addition to the community in which they live, as well as worthy members to our profession. It was intended that the power to authorize prosecution should be invested in this board. No individual doctor wishes the responsibility that goes with these cases, for there is always a certain amount of reflection and notoriety attached with them. The doctors individually are partially to blame for the condition we have to-day. They will suffer their rights to be encroached upon rather than make an outcry.

While prosecuting the Chinaman in Hanford, not one of my fellow practitioners volunteered to help shoulder the burden of protecting our rights, until the Chinaman was acquitted, then a few offered to furnish their portion of a fund to secure the service of an able lawyer in the case. You will find the same condition in your town, gentlemen, should you institute a suit for the same offense. We have got to work as a unit in this matter, and have the present law enforced if we do not want it to die of hypostatic congestion. We should insist that our voices be recognized when we notify the board of an

offense committed, if not heard then let a committee inform the Governor of their methods, and I am sure we will get action or a new board.

If the Board of Examiners is not a paying organization, then why have it? Why not do away with it and invest the State Board of Health with the power to examine candidates wishing to obtain a license in this state? In this way we might become economical enough to create a fund to prosecute these cases with, or if the present board will demonstrate to us that they are willing to perform this duty and the funds are not sufficient, which they receive for this work, then I am willing to donate my part to create a protective fund. But, gentlemen, I am going to be hard to convince that it takes seven or eight thousand dollars annually to pass on the candidates coming before this board.

Now if you, gentlemen, find this matter of sufficient importance to be worthy of any consideration whatever, then let us as representatives of the medical profession see that the principal purpose of the medical act is satisfied.

A CASE OF TUMOR OF THE MEDULLA OBLONGATA.*

By L. NEWMARK, M. D., and MILTON B. LENNON, M. D., San Francisco.

In August, 1906, Dr. W. F. Cheney first gave one of us an opportunity to examine the patient, a boy sixteen years old. At that time the boy declared that he had no pain at all, and indeed he appeared quite at ease and was even inclined to be merry. He staggered when walking, had a cerebellar gait, lurched frequently to the right, and there was a decided ataxic fling of the right foot. But of these disturbances, when they were adverted to, he professed to be unconscious.

There was marked nystagmus when he looked in any direction; it was most pronounced when he looked to the left. There was no paresis of any of the ocular muscles. The vessels of the optic discs were full, but there was no decided papillitis at the time. (The boy observed that he could not see well after dark.) The soft palate was not raised well when he said "Ah," but the left side was raised more than the right. At times he had had difficulty in swallowing, but at this time he had no complaint in that respect. There were no other disturbances in the functions of motor or sensory cranial nerves. (There is no note regarding the sense of taste.)

The movements of the right hand were plainly ataxic; the sense of position of the fingers was defective and there was astereognosis. The functions of the left hand were normal. Motor power in the right hand was not distinctly diminished. Nor was it in either of the lower extremities. The ataxia of the right foot when walking has already been mentioned; but when he touched either knee with the opposite heel or described a circle in the air with either foot, while recumbent, no inco-ordination

appeared. The sense of passive movement or posture in the big toe was normally keen on the right as well as on the left.

Sensibility in its other modes was unimpaired in the lower extremities, except that the right sole was a little more ticklish than the left. To stroking of the sole there was a somewhat livelier flexor response in the right foot than in the left. The ankle-jerks and knee-jerks were normal on both sides; also the abdominal and cremasteric reflexes.

Concerning the condition of the patient before this time it was ascertained that he was seized with vomiting towards the end of April, 1906. He rapidly lost in weight, as much as 30 pounds, so that in the absence of symptoms indicating a lesion in the central nervous system a competent observer suspected that the disease was tuberculosis. In May, 1906, he was examined by Dr. Hewlett, whose notes contained the same symptoms as those described in the foregoing, and furthermore an intense optic neuritis (observed by Dr. Barkan). There was some difficulty in swallowing and occasional fronto-occipital headaches.

A note on September 18, 1906, says that the patient's condition was unchanged and that he felt very well. A suspicion of atrophy in the right side of the tongue was not confirmed in the note of October 23d. The preceding week the patient had had some difficulty in swallowing food while in bed (to which he had been confined by a cold). The left side of the soft palate acted decidedly better than the right. There was again a well-marked papillitis; the edges of the discs had become decidedly swollen during the past week.

On this day the boy walked several blocks in the company of one of us. The cerebellar lurching and the ataxia of the right leg were commented upon during this walk, but the patient seemed not at all disturbed by them and declared that he felt "fine."

He appeared to be as usual on October 24th and 25th and on the morning of October 26th occupied himself in chopping kindling wood. About 2 in the afternoon he had a headache and vomited his food; after resting for a few minutes he asked again for food, but before he could get it the vomiting was renewed and he died about fifteen minutes after he had begun to feel ill.

On October 27th Professor Ophüls removed the brain, and kindly relinquished the specimen to us. It was fixed in formaldehyde and after that in bichromate of potash, and, after hardening in alcohol, the blocks were embedded in celloidin and sections cut as far as possible perpendicularly to the long axis of the pons and medulla oblongata.

As for the gross appearance of the specimen, it may suffice to say that the medulla oblongata was transformed by a tumor into a spherical body; the tumor projected chiefly out of the right half of the medulla. A section through the middle of the pons discloses a tumor in the fourth ventricle, the roof of which had given way.

The microscopic sections were mostly stained by a modification of Weigert's method for the myeline

* From the Neuro-Pathological Laboratory of the San Francisco Polyclinic.

sheaths; some were stained by Von Gieson's method and others with hematoxylin and eosin.

In sections through the posterior part of the posterior corpora quadrigemina, at the level of the trochlear nerve, except for some dilation of the fourth ventricle conditions are normal. The superior cerebellar peduncles are observed here shifting ventralwards and towards the median line on the way to their decussation further forwards. Sections through the pons and cerebellum, beginning at the level of the emergence of the fifth nerve, show a tumor lying in the fourth ventricle. The tumor in the upper sections is situated in the right half of the ventricle. It becomes gradually larger as we descend, extending across the middle line. It is free in the ventricle until the level of the sixth nerve is reached, where it is seen to project from the floor of the ventricle a little to the right of the middle line.

The superior cerebellar peduncles at these levels are misshapen, compressed and pushed far apart. A mere thread of tissue passes from one to the other, forming all that there is of a roof of the ventricle; in some places even this is wanting. In the pons itself under the floor of the ventricle, except for some asymmetry and signs of compression in and about the median fillet no damage is discernible down to the level of the origin of the abducens nerve. Here, however (where, as already stated, the tumor first appears connected with the floor of the ventricle), a pathological change is revealed in a section stained by Weigert's myelin-sheath stain by a slight pallor in the right half of the pons in the area between the sixth nerve and the middle cerebellar peduncle. This pallor becomes somewhat more distinct a little lower down in a section through the upper medulla oblongata, where the intact seventh nerve traverses the affected area, and soon in the course of our descent most of the nerve fibers between the right olivary body and the right middle peduncle have disappeared.



Figure 1.

The Van Gieson stain shows that the growth extends here through the right half of the medulla oblongata from its dorsal to its ventral surface. The intraventricular and intramedullary portions of the tumor increase rapidly in size.

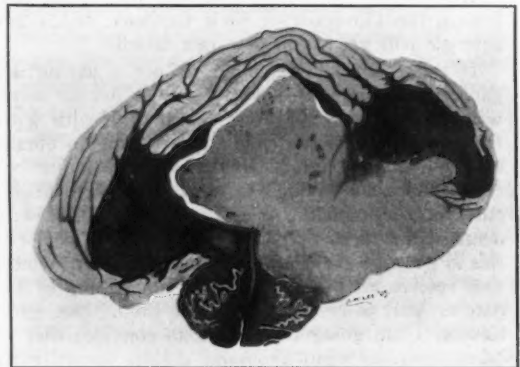


Figure 2.

In the region in the upper half of the olivary body it extends toward the right from the olive to the flocculus; the pyramid and the fillet are spared. It then continues to enlarge laterally, destroying the right corpus restiforme and encroaching upon the right middle peduncle of the cerebellum.

After the medulla oblongata has separated from the cerebellum the tumor is at first confined to the right half of the medulla, but it gradually invades the left half in its dorsal part (Figure 3) and near the lower pole of the olive it occupies the dorsal half of the left side of the medulla oblongata and reaches there laterally almost to the corpus restiforme. Hypoglossus fibers are preserved in the ventral half of the section.

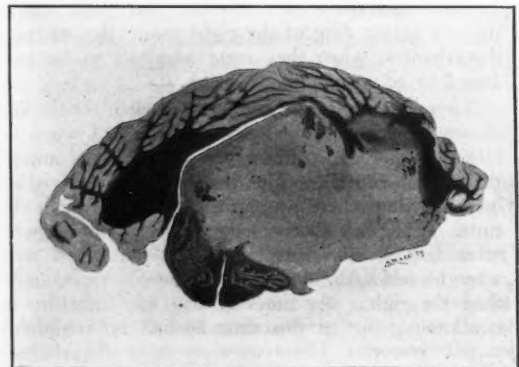


Figure 3.

Sections through the medulla oblongata at, and below, the lower tip of the olive now present roughly the picture of a crescent-shaped medulla formed by both (intact) pyramids and a small amount of normal nerve tissue dorsad of them on either side of the middle line, and by the myelinated tissue at the left periphery situated between the pyramid and the restiforme body. Internal arcuate fibers are preserved on the left. The concavity of this crescent is occupied by a tumor which extends dorsalwards until it fills the space between the corpora dentata of the cerebellum and invades the white cerebellar

substance on the right beyond the dentate body. Figure 3 shows well the relations between cerebellum, medulla oblongata and tumor, which are found also at lower levels than that represented in this illustration: more and more of the medulla is superseded by the tumor until the shape of the former approaches more that of a crescent. It is difficult in parts to get one's bearings on account of the widespread destruction of tissue and the asymmetry of the section. It is about at the level of the calamus scriptorius that the crescent-shape described is most marked. Here we find the pyramids and the fillet preserved on both sides, also some hypoglossus fibers on both sides; further on the left the direct cerebellar tract, the corpus restiforme and the solitary bundle adjoining the tumor, and the internal arcuate fibers descending to the fillet.

A section through the medulla oblongata (and cerebellum) at the sensory decussation exhibits the tumor at its maximum. The relations between medulla, cerebellum and tumor remain the same as shown in Figure 3. The decussation is intact; the internal arcuate fibers form a cup which is occupied by a part of the tumor, and these fibers run into the tumor on the right. The root of the spinal accessory is seen in the left half of the medulla. Beyond this the examination of the medulla could not proceed, as the tumor formed the lower end of the specimen and there was no spinal cord attached to it.

In the cerebellum the growth extends backwards in the lower worm, is triangular in shape and occupies at first the whole of the transverse section of the uvula, and is bounded dorsally by the white matter connecting the two corpora dentata. The tumor in the vermis becomes smaller posteriorly, diminishing in its dorso-ventral dimension. It soon disappears, leaving the dentate bodies and the posterior part of the inferior worm intact.

Professor Ophüls examined our specimens and pronounced the tumor a glio-sarcoma.

It will occasion surprise that so extensive a disease in a part of the nervous system which presides over so important functions should be compatible with life as long as it was in this case and should be so easily borne. Oppenheim, in his *Lehrbuch der Nervenkrankheiten*, 5th Edition, p. 1036, furnishes the reproduction of a section showing an amazing destruction of fibers of the medulla oblongata by two tubercles. Starr writes in his "Nervous Diseases," p. 578 of the third edition, that he has seen an infiltrating glioma of the medulla oblongata which produced an apparent uniform increase in size of the entire medulla to double its ordinary dimensions, but in which there were absolutely no signs of any disease of either cranial nerves or tracts passing through this important part of the nervous system.

The persistence of nerve fibers within the tumor might be supposed to account for this incongruity between extent of the growth and paucity of symptoms. We have found myelinated fibers within the substance of the tumor, as other observers have done; but they are met with in the marginal areas of the growth and are absent from the central parts.

Bielschowsky (*Journal für Neurologie und Psychologie*, Bd. 7) has found more axis-cylinders with his silver-aldehyde method than the Weigert method showed myelinated fibers, but those were also only in the marginal zone of infiltrating tumors. So histology does not provide the desired explanation.

In the case of Starr's which was just referred to, the symptoms had led to the diagnosis of tumor of the cerebellum. In a case reported by Wiswe in the *Deutsche Zeitschrift für Nervenheilkunde*, Bd. 34, in which the tumor was found at autopsy to be in the medulla oblongata, Oppenheim had supposed it to be in the cerebellum or the cerebello-pontile angle, and this incorrect diagnosis had led to an operation on the cerebellum. Earlier in our case, at a time when the intense optic neuritis existed, one of our predecessors had made the diagnosis of a cerebellar tumor. From these errors it will be seen that tumors of the medulla oblongata may be mistaken for growths in the cerebellum, and as cerebellar growths nowadays indicate an operation, and as a tumor in the medulla oblongata is a *noli-me-tangere*, the distinction has become a matter of practical importance; which it was not, a relatively short time ago.

Our patient had a cerebellar gait; but the peculiar ataxia of the right foot, the astereognosis of the right hand, the disturbance in the innervation of the soft palate and the difficulty in swallowing, besides the subsidence of the papillitis and the patient's subjective condition seemed to us to point rather to the medulla as the primary seat of the disease with secondary impairment of cerebellar functions (through involvement of the peduncles) than to a growth in the cerebellum which produced some of the symptoms by pressure on the medulla oblongata. An operation was therefore not taken into consideration.

TRAUMATIC INJURIES OF THE HEAD.*

By O. D. HAMLIN, M. D., Oakland.

In the study of traumatic injuries of the head, the question of diagnosis or the extent of injury is the first question of importance. An early diagnosis will lead to proper treatment, and it is often difficult to make a correct diagnosis of concussion, compression from fracture, compression from hemorrhage, fracture without compression with or without hemorrhage, laceration of brain tissue or sub-arachnoidal serous exudate, which follows some cases of head injury, or a combination of two or more of these conditions, where the symptoms of one overlap into the other.

When one of these conditions exists alone, the diagnosis is not so difficult, but it is important to study separately the symptoms of these conditions so that we may know more clearly where one condition overlaps into another. For instance, an injury sufficient to cause a fracture of the skull is nearly always associated with some concussion, especially if the traumatism is received by a fall

* Read before the Pacific Association of Railway Surgeons, August, 1909.

severe enough to jar the brain tissue. The patient may remain unconscious for a few minutes or a much longer period, according to the severity of the concussion, and recover consciousness and again return to an unconscious condition or a semi-conscious condition, or may show some evidence of paralysis, due to a slow, oozing hemorrhage. Here you have an illustration of one condition lapsing into another, the first unconsciousness being due to concussion, the second due to hemorrhage, or the continuation of the first unconsciousness due to concussion overlapping into the period of hemorrhage.

The differentiation between concussion and compression is not difficult when these conditions exist separately, but is often very difficult when the symptoms of both are prominent.

In concussion the pulse may be slow and feeble, while in compression the lessened pulse rate is not marked by a corresponding diminution of force. In concussion the pallor of the surface is marked, while in compression the natural color is maintained. In concussion we have a low blood pressure, going as low as 60 or 70, according to the severity of the concussion. In compression the blood pressure may be raised or about normal, but should both conditions exist the blood pressure may be slightly lowered. The respiratory act in concussion is usually not affected, while in compression the vagus center is usually decidedly affected. In concussion the pupils respond to light, although sometimes unevenly contracted, while in compression they are usually fixed, often dilated, may be unequal, and do not respond to light.

It was one time thought that an inequality of the pupils was due to fracture, compression of hemorrhage, but experiments have shown that an inequality of pupil may exist in concussion. The exact reason of this pathology has not been clearly defined. Unconsciousness may exist in both conditions, except in concussion unconsciousness is immediate and in compression often develops later, unless one condition overlaps into another. Should the symptoms of concussion exist for a long period of time our suspicions should be aroused to some condition other than concussion.

In fracture of the base, hemorrhage may take place from the ear, from the mouth, from the nose or under the conjunctiva, escape of cerebro-spinal fluid may be noted from the ear or nose.

When hemorrhage exists from the nose or ear it may be accompanied by cerebro-spinal fluid, and if collected the presence of sugar may be demonstrated, also characterized by small amount of albumen and a relatively large amount of sodium chloride.

Fractures of the base are regarded as more serious than fractures of the vault, as these fractures open into cavities which it is impossible to keep surgically clean, hence the great percentage of meningeal infection following head injuries. However, according to McEwen, 85% of basal fractures originate in the vault and are caused by an extension of a linear fracture from the vault.

In regard to meningeal infection, a wonderful step has recently been taken in this direction, which

is written up in the *Johns Hopkins Bulletin* for April, 1909, which shows that urotropin administered by the mouth invariably appears in the cerebro-spinal fluid. This fact has been demonstrated by a number of observations on animals and man. It is found that within an hour after the administration of the drug it appeared in the cerebro-spinal fluid, and that after the administration of the drug, within therapeutic limits, a sufficient amount of the drug appeared in the cerebro-spinal fluid to exercise a decided inhibitory effect upon the growth of organisms inoculated into the fluid after its removal from the body. It was also found that the inoculation of dogs and rabbits with streptococcus and then 60 to 80 gr. a day of urotropin, given under conditions which would insure absorption, will markedly defer and in some cases prevent the onset of fatal meningitis. In view of these observations, the administration of urotropin is advised in all clinical cases in which meningitis is possible or threatened, or even where meningeal infection has actually occurred.

The question of blood pressure in the study of brain surgery has become more and more important, first, from the standpoint of injury received by the patient to determine the amount of concussion existing, or, as has been stated by some, the amount of shock, as the pathology of shock and concussion are so closely allied that many investigators claim that it is impossible to differentiate between them. The treatment of shock, and collapse due to hemorrhage, is considerably different.

Cushing predicts that in the routine treatment of shock, concussion and hemorrhage, observations upon blood pressure will soon occupy the same relative position that pulse and temperature occupy at the present time.

As to the treatment of these conditions, the beginning of rise of blood pressure is the cue as to whether your treatment is doing any good and as to whether it should be continued in larger or smaller doses.

The indiscriminate use of normal salt solution, strychnia, digitalin, morphin, nitro-glycerin and other drugs, which has become a matter of habit, are mentioned only to be condemned. The recent experiments of Crile and the conclusions which he has drawn from these experiments have thrown a new light on this field. To the surgeon of to-day, the essential fact brought out by Crile's experiments is that strychnia, the stimulant universally employed in the treatment of shock, is practically of no value. Crile's statements go further to say that strychnia often increases the condition of shock which it is intended to relieve, and this coincides with my personal experience. I have not used strychnia except as a respiratory stimulant.

This can be clearly demonstrated to us if we stop for a moment to consider the pathology of concussion. According to Crile and other investigators, the pathology of concussion or shock has not been fully determined. The condition is defined by Gould as a relaxation or abolition of the sustaining and controlling influence which the nervous system exercises over the vital organic functions of the body as

a result of a profound impression made upon the cerebro-spinal axis either directly or through the agency of an afferent nerve, or through the circulatory system. According to Crile's experiments, this condition is shown to be an exhaustion or paralysis of the vasomotor centers and loss of vascular tone due to vasomotor disturbance.

Having this pathology in view and considering the physiological action of adrenalin and following the experiments of Crile with adrenalin, I feel that this drug should be given the first place in the treatment of concussion.

Case No. 1—G. R. January 10, 1909. Age 28 years. Injured by falling from street car, striking on the side of the head. Seen two hours later at the hospital. Patient unconscious, pupils dilated, did not react to light. Blood pressure 110. Lumbar puncture negative. Bleeding from left ear. After shaving head, examination revealed evidence of severe traumatism an inch and a half above the left ear. Patient was prepared for exploratory incision, opening of the skull by means of the trap-door method, sometimes known as the Hartley-Krause operation. Fracture of the skull running down from the petrous portion of the left temporal bone with a large extradural clot. Consequently, no incision was made into the dura, on the ground that if there had been a severe sub-dural hemorrhage, the lumbar puncture would have revealed the evidence of blood in the cerebro-spinal fluid. Patient was given practically no anesthetic for this operation. However, the anesthetist gave the patient a few whiffs of ether, but this was hardly necessary. Patient did not begin to recover consciousness for about four hours after the operation. Consciousness came on gradually.

Condition of patient after operation: Pulse 54, respiration 28, temperature 97, blood pressure 110. Blood pressure during operation descended to 90, but within four hours after the operation ascended to 120.

Patient given adrenalin 10 min. every four hours, hypodermically. Next day, patient's condition generally improved. Pulse 60, blood pressure 124, temperature 99 2/5, mental condition beginning to clear, considerable nausea and vomiting during night. Slow, gradual improvement for the next five days, blood pressure remaining between 118 and 125, pulse between 50 and 58, temperature 96 to 99 2/5. After three weeks patient returned to his home, convalescent. Patient seen several times since. No further effects from operation.

The important point in this case was that concussion existed and also some compression from the extradural hemorrhage, which could not be definitely diagnosed without exploratory operation.

Case No. 2—J. L. April 10, 1909, 24 years. Occupation, clerk. Struck with a piece of iron gas-pipe over the right side of the head, during a quarrel. Patient returned to his home without evidence of severe injury. Next morning complained of headache and remained in bed. Did not call physician until afternoon, at which time I saw patient in consultation with his physician. The patient showed evidence of paralysis of the right leg and arm on the same side as the injury. Patient was removed to hospital that evening. Next morning paralysis of right leg and arm more marked, temperature 99, pulse 110, blood pressure 140. Patient was prepared for exploratory incision. The injury being on the right side and the paralysis being on the right side, the exploratory trap-door operation was made on the left side over the fissure of Orlando. Lumbar puncture revealed sub-dural hemorrhage by decided evidence of blood in the

cerebro-spinal fluid. On exposure of the dura, no pulsation, but evidence of a large clot extending into the fissure about the size of a 50c piece. Clot removed. Brain showed evidence of pulsating. Dura closed with very fine catgut sutures. Wound closed. Incision made on right side over point of injury, but revealed no evidence of injury to the bone and symptoms showing no pathology to indicate injury on that side of the head, no further operative steps were taken on the right side. Blood pressure during operation went down to 120, but immediately after operation rose to 135 and remained between 135 and 150 for the next five days, pulse ranging from 96 to 112 during the next five days. Patient complained of considerable pain in the head. No other symptoms of any importance developed for the next two weeks. Patient remained in the hospital about three weeks and returned home without any evidence of permanent injury.

The important points in this case were that the injury was on the right side but the paralysis showed the evidence of pathology on the left side; that the lumbar puncture revealed the evidence of subdural hemorrhage; that the injury was contra-coup, and that the hemorrhage was slow, gradual, oozing, as the patient returned to his home alone that night and did not show evidence of paralysis till the next day.

Case No. 3—A. P. January 20, 1909. Laborer. Age 45 years. Fell from a street car. Brought to the hospital unconscious, bleeding from both ears, pupils equal, did not react to light. Examination revealed what might be a paralysis of the right leg and arm, that is, patient was somewhat restless, freely moving the left leg and arm and hand, but on account of head injury and unconscious condition of the patient, one might be led to believe there was a hemorrhage on the left side of the brain. But further examination revealed an intercapsular fracture of the right thigh, fracture of the right clavicle and of the right acromion process, which accounted for the patient not moving the right side. Patient's pulse was 120, temperature 98 3/5, blood pressure 140.

Patient was prepared for exploratory incision, and, as the bleeding had existed from both ears and lumbar puncture revealed decidedly blood-stained cerebro-spinal fluid, a large opening was made at the base of the skull over the cerebellum on each side of the median line just below the lateral sinus, at which point a large clot was removed. Patient put to bed. One hour later, pulse 108, temperature 99 4/5, blood pressure 120, respiration 48. Patient's general condition seemed to improve for about two hours. About four hours later, patient sank into a deep comatose condition and died in about eight hours from time of operation.

Autopsy revealed fracture of the skull, beginning in the vault about an inch and a half above the external occipital protuberance in the occipital bone and extending through the suture of the occipital bone into the petrous portion of the temporal bone down to the foramen magnum on both sides. Fracture seemed to run a similar course on the left and right side into the foramen magnum except on the left side the line of fracture into the foramen magnum seemed to be a little anterior of that on the right side. The left lateral sinus, or the sigmoid sinus, as it is sometimes called, just under the mastoid process of the temporal bone, had been ruptured. Disorganization of brain tissue and considerable destruction of the cerebellum on the left side.

The important point in this case was the apparent paralysis of the right side, which might mislead one to suspect hemorrhage of the cortex on account of the local injury of the right hip and shoulder. Will

state further that in this case the autopsy revealed no hemorrhage of the cortex or parietal portion of the head, death being due to the destruction of the cerebellum.

Case No. 4—Mrs. B. February 2, 1909, 40 years. American. Housewife. Found unconscious on the street. Later history of the case revealed that she had been riding in a buggy which was struck by an automobile. Patient unconscious. Right pupil dilated. Left pupil about normal. Both pupils reacted to light. Temperature 98, pulse 60, blood pressure 120. Cheyne-Stokes respiration. Hemorrhage from the right ear. Examination revealed reflexes equal on both sides. No motor disturbance. Patient prepared for exploratory incision. Lumbar puncture showed evidence of decided blood stain in the cerebro-spinal fluid. Incision made over point of injury at the base of the skull below the lateral sinus on the right side, which revealed compound comminuted fracture about an inch and a half in diameter. Bony fragments and blood clot removed. Patient put to bed, head elevated, given adrenalin 10 min., atropin 1/150th, hypodermically. February 3d—Temperature 97, pulse 50, respiration 32, blood pressure 130. Dressings of head showed evidence of considerable drainage and moisture, large quantity of blood and watery fluid. Patient remained in this same condition for about six days until about February 9th, at which time patient had three convulsions in less than two hours. Patient removed to operating-room and without anesthetic, wound opened and examination of the brain surface revealed a clot about the size of a 50c piece. Clot removed. Case dressed and patient replaced in bed. February 10th—Temperature 100, pulse 60, respiration 32, blood pressure 130. No evidence of further convulsion. Patient given liquid nourishment every three hours, adrenalin chlorid 10 min. every six to eight hours. This treatment continued for about two weeks. Condition showed general slow signs of improvement. February 27th—Patient allowed to sit out of bed. Patient continued to improve until March 20th, when she left the hospital, convalescent.

The important point in this case was that convulsions were due to blood clot, which ceased after its removal, also the fracture was at the base of the skull, and often these cases, because the fracture is at the base, are considered non-operative. In this case the operation was necessary, as the clot was located at the base of the skull below the lateral sinus, and shows that operative interference at the base of the skull can be done successfully in proper cases.

This was the ninth case that I have trephined the base of the skull, with the recovery of five and death of four. In all cases of death, autopsy revealed disorganization and severe rupture of brain and cerebella tissue and in one case extensive injury to the medulla.

Case No. 5—J. T. March 31, 1909. Age 75 years. Struck by electric car while crossing the street. Examination showed slight contusion over left cheek bone and left side of head. Patient unconscious. Pulse 50, temperature 98, blood pressure 90. Deep comatose condition. Pupils did not react to light. Respiration 14. Did not react to stimulation. No evidence of hemorrhage. Lumbar puncture revealed no hemorrhage in the cerebro-spinal fluid. Diagnosis of concussion was made in this case. No operative procedure indicated. Patient remained in comatose condition for about four hours and died.

Autopsy revealed decided anemia of the brain tissue, very slight hemorrhage into the right cere-

bella fossa, but this did not enter into the cause of death, but the cause of death in this case was concussion and shock.

The important point in this case was that this was purely a case of concussion, as the autopsy revealed no evidence of sufficient hemorrhage to cause death.

Case No. 6—W. C. March 12, 1909. Age 31 years. Injured by being struck by a street car. Condition when seen at the hospital about one hour later: Contusion and laceration of scalp above right ear about two inches and a half in diameter. Pulse 120, respiration 30, temperature 99, blood pressure 150. Lumbar puncture revealed no evidence of blood. Patient was unconscious for about two hours after injury. Pupils equal and reacted to light. Examination revealed a bulging mass about two inches and a half in diameter above the right ear.

Patient was prepared for exploratory incision, which revealed depressed fragments of bone and a profound extradural hemorrhage. Loose fragments of bone were cleared away and extradural clot removed. On examination of dura no normal pulsation could be seen. Dura was opened and considerable effusion relieved, after which normal pulsation returned. Sharp edges of bone were removed and plain gauze dressing used.

Following day, temperature 100, pulse 80, blood pressure 135. Patient dressed every day. One draining strip was not removed until the fourth day and then partially replaced to give additional drainage. Patient continued to improve and left hospital April 15, 1909, convalescent.

The important diagnostic point in this case was the profuse hemorrhage, which was extradural, and lumbar puncture did not show hemorrhage. In my experience the cases of subdural hemorrhage have always shown signs of blood in the lumbar puncture. One argument which may be raised against this is that the lumbar puncture itself may show some slight hemorrhage, but this has not been so in my experience.

Case No. 7—Wm. J. August 2, 1909. Newspaper man. Age 35 years. Brought to hospital unconscious from fall out of buggy. When seen a half hour later still unconscious. Examination showed no marks of violence on body except contusion over the middle of the forehead at the junction of the hair line. Pupils dilated, reacted to light. Blood pressure 100, pulse 54, temperature 98. Lumbar puncture negative, but twenty minutes later patient began to regain consciousness and within an hour patient had regained consciousness sufficiently to recognize his wife and other people that he knew, but mentality not clear, memory as regarding accident a complete blank. This condition continued for about 24 hours, patient complaining of severe pain in the head. Blood pressure varied during the first 24 hours from 100 to 110, pulse ranging from 48 to 56. Temperature next morning 96 2/10.

This condition was diagnosed as one of pure concussion. Patient continued to complain of pain in the head until August 16th, at which time he had recovered sufficiently to be allowed to go about one hour morning and afternoon. Patient continued to improve. August 16th, blood pressure 150, pulse 84, temperature from August 4th to 10th ranging from 96 to 98. August 20th, patient convalescent. Blood pressure 160, temperature normal, pulse 90. Some pain in the head over the supra-orbital nerve.

The important point in this case was that it was one of concussion and required no exploratory incision of the scalp, as the injury to the forehead was not sufficient to injure the scalp. The symptoms,

blood pressure, pulse rate and temperature pointed purely to concussion.

Case No. 8—B. M. August 8, 1909. Schoolboy. Age 12 years. Struck by automobile, rendered unconscious for about two hours. When seen with his physician the following day, August 9th, blood pressure 140, temperature 99 4/5, pulse 120. Large contusion about two inches in diameter just above the left ear. Lumbar puncture showed no signs of blood. Patient suffering from considerable pain in the head. Prepared for exploratory incision. Severe contusion and large depressed fracture found over the parietal eminence on the left side. Fragments of bone removed and an extradural clot about two inches in diameter. Dura bulging, showed no signs of pulsation. Very small incision made in the dura and considerable serous exudate relieved, after which dura showed normal pulsation. Wound closed with small drain.

August 11th—Temperature 100 2/5, pulse 102, blood pressure 130. Patient's general condition good. Patient was put on 5 gr. urotropin three times a day. Patient now convalescent, sitting up. Wound healed.

The important point in this case was that the first unconsciousness of about two hours was due to concussion. There was no particular evidence of hemorrhage or fracture, but the severe injury to the scalp warranted an exploratory incision into the contusion over the parietal eminence on the left side, which incision revealed a fracture.

To my mind, all severe injuries to the scalp, followed by the history of unconsciousness or other evidence of severe injury, require exploratory incision of the scalp at least, which often reveals fractures.

Discussion.

Dr. W. I. Terry, San Francisco: There are one or two things which I want to speak of in regard to Dr. Hamlin's paper, especially from the diagnostic standpoint. Several years ago Dr. Huntington and I commenced making lumbar punctures as a routine practice and we found them to be of great value. I agree with the conclusions set forth in this paper. A new point just brought out from the prognostic standpoint is the persistent absence of deep reflexes, which means that the brain will not recover. In these cases an anemia of the higher centers has persisted so long that they are dead and the patient will almost invariably die. The point in regard to the relation of alcohol and fracture of the skull: so often we have a mixture of the two. A drunken man is struck on the head and the difficulty of diagnosis is great, and in those cases lumbar puncture helps greatly. If you get bloody fluid you can be sure of fracture of the skull in addition to alcohol. Urotropin I have employed for a year now, and in two cases at least it has been of great value in preventing meningitis and in one case of developed meningitis, where the organism was streptococcus, the patient recovered. I give much larger doses than spoken of here, and I think that not less than 80 grains a day should be given. These large doses will produce hematuria in a considerable number of cases, which is transitory and stops as soon as the urotropin is discontinued. There are no casts in the urine where the hematuria is due to urotropin. In the treatment of basal fractures the subtemporal decompression operations are advocated, especially by Cushing. It is difficult to get at the base, even by the method of which Dr. Hamlin speaks. Going into the posterior fossa will relieve some of them. I think that the simpler proposition is simply to open the skull under the muscle, put a drain down toward the base and close

the wound, leaving the bone out entirely, and the temporal muscle will prevent a hernia.

Dr. O. D. Hamlin, closing discussion: Dr. Terry brought out a point with regard to the operation over the temporal region. It is true that an operation at the base will not relieve the middle and anterior fossa, but if you have sufficient evidence from your injury, such as bleeding of the ear, you generally have your hemorrhage in the posterior fossa and know where the condition is. In this case I operated below the sinus, and if the hemorrhage is in the anterior or middle fossa you must do the temporal operation.

REMARKS UNDER HEAD OF GEOGRAPHICAL DISTRIBUTION OF LEPROSY.*

By ARTHUR A. O'NEILL, M. D., San Francisco.

(The following is an abstract of a clinical discussion of certain patients presented at the meeting of the Society.)

Of all the diseases to which mankind is subject, none has such universal distribution as this disease, the living embodiment of which I am presenting to you.

Medical men are very apt to have preconceived ideas of the nature of leprosy and to picture to themselves a human being who is nothing more or less than a caricature of the human form divine. As a matter of fact, in its earliest stages, leprosy is far from being a striking disease; for years the only visible evidence of its existence insistence being two or three small blotches or one or two patches of pale or pigmented skin. Those are very often disregarded by the patient and concealed by the clothing, their true significance of which is only appreciated by an expert.

It is found close to the Arctic Circle and thrives in the tropics. A study of the map of the world, in relation to this disease, would lead one to subscribe to J. Hutchison's belief that leprosy is essentially a disease of semi-civilization. Prior to the advent of the white man, the Hawaiian and the Australian aborigines knew nothing of leprosy, nor did they have the equivalent of the word in their languages. Wherever a leper has been introduced in a new country there he has blazed his way and his trail can be followed with unerring accuracy. In the Hawaiian Islands, for example, the disease followed the advent of the Chinaman and is called by the Hawaiians "Mipaki" or the Chinaman disease.

In late years wherever leprosy has been found among those of a higher civilization, there the advent of the leper shows no increase, as, for example, the colony of 160 Norwegian lepers that were introduced into the State of Minnesota. According to the latest report there are but twenty remaining in the original colony, and in the home country (Norway) measures to stamp out the disease have met with untold success. And again, in San Francisco in 1872, we had 51 in the hospital; to-day we have but 18.

* Read before San Francisco County Medical Society, November, 1909.

The disease is essentially contagious and such was the opinion given forth by the Congress of Leprologists that has just closed its session in Bergen. In what way this contagium is conveyed is unknown. As to the channel of infection, prior to 1909 it was supposed that a lesion of the continuity of the nasal mucous membrane was necessary for the introduction of the germ of the disease, the observers finding, as a rule, an ulceration of the nasal septum from which could be obtained the lepra bacillus. That this is not the case is shown by the large number of victims of the disease who present no nasal symptoms whatever.

It is rather a curious coincidence that long before scientists had thought of the nose as a point of entrance for the germ, the native Hawaiians had accepted it as the place of ingress. Their method of greeting is to put their faces together and rub their noses in a most vigorous manner, but among the Asiatics, who never touch one another at greeting but shake hands with themselves, and to whom the kiss is an unknown form of salutation, leprosy is rife.

As is well known, the only diseases in which we have made any advances, as regards cause and treatment, are those to which the lower animals are susceptible, and, as yet, unfortunately for mankind, we have been unable to inoculate any of the animals commonly used in bacteriological work.

Heredity. Heredity plays no part in the transmission of the disease. As Mr. Manson pithily expresses it, "physiological peculiarities and susceptibilities may be inherited, the parasite never."

Treatment. In 1908 Deycke attempted to grow lepra bacilli in pure culture but failed. He isolated a micro-organism which he termed "screpto-thrix leprodis." From this organism he extracted with ether a genuine neutral fact which he calls "Nastinie." Our experiments with this substance showed it to be an absolute failure.

Dyer of New Orleans claims to have cured 10% and to have noted an improvement in 25% of those under his care. No such percentage of cures is heard of from other leprologists. He attributed his results to the use of strychnia, arsenic and Chaulmoogra oil. Some other favorable reports have been received from India and the Philippines of the use of the X-Ray in this disease.

Bacteriology. Clegg, bacteriologist of the Bureau of Science of Manila, in March, 1909, is the last to have reported success in making cultures of the bacillus of leprosy and claimed that he carried it through five generations.

Diagnosis. The history of the patient is to be considered as to his exposure, his contact with persons, the areas of discoloration, anesthesia, trophic disturbances as perforating ulcers, muscle atrophy, causing the well known "Griffin hand," deformity of hands and feet, persistent ulcers, articular of phlanges and fingers and toes, facial paralysis, brown discolorations and peripheral ring elevated and deeply pigmented with lack of pigment in the center, expression of face, satyriasis, leontiasis, change of

voice, the lips thicken, the nose broadens and the ears stand out with additional increased bulk, profuse perspiration; average life ten years.

Disease not inherited. Differential diagnosis—ordinary syringo myelia, ainhun, tuberculosis and syphilis. The fish theory of Hutchison has been offset by the fact that the disease is prevalent in certain parts of India where the inhabitants know not what a fish is and did not recognize the picture of one.

Contagion. Experience in New Orleans proves that one may be in very close and intimate contact with lepers and not develop the disease. The sisters of charity, who have complete charge of the institution, have washed the clothing, made the repairs on the clothing, frequently pricking themselves with the needle in so doing, waited upon these patients and none of them has ever developed the disease.

Discussion.

Dr. D. W. Montgomery: It is now almost universally conceded that the bacillus called the lepra bacillus, or Hansen's bacillus, is the cause of leprosy, but how this virus gains an entrance into the human body is still a mystery. We do not even know if the lepra bacilli we stain are living. It has been surmised that they are dead, and that what we stain is merely a chitinous envelope.

It has been conjectured that the virus gains an entrance into the human body through the nose, but this seems hardly consistent with the fact that a great number of lepers are perfectly free of disease as regards their nasal passages. On the other hand there does seem to be a great number of cases that have an erythematous patch or patches five, six or seven years before they are declared lepers. I have seen these erythematous patches starting as slightly raised red, analgesic areas. Usually there is only one, rarely several. This patch may, and I think usually does, subside. I treated one such patient for quite a long time with salol, where the patch subsided leaving a tiny scar. I cannot, however, assert that the administration of the salol had any influence on the disappearance of the patch. It is possible that this man later on developed a classical leprosy.

It has been asserted that the acquisition of leprosy is dependent on the misery suffered by the individual. That he who is to get leprosy must be poorly housed and underfed. It is true that almost all lepers are poor, but that they are undernourished is another question. There was a Finnish sailor in the pesthouse some years ago, who was a giant, with fine muscles, a beautiful skin, and in every way well nourished. The first intimation he had of his disease was an urticaria-like eruption all over the body. This eruption subsided, and classic leprosy developed. As etiology, he gave a history of a very short stay of a couple of days in Hawaii. It seems almost impossible that he could have acquired leprosy on so short an exposure, as it usually seems to require years of intimate association to transmit the disease.

I have seen only two cases where leprosy was acquired in the United States. In one of these, a man got leprosy after living for quite a time in Chinese railroad camps in Nevada. The other case was a woman who was born in Ireland, and had only lived in Ireland, in Boston and in San Francisco. For a long time the source of her disease was a mystery to me, until the late Dr. George Fitch told me that a well-known Hawaiian leper had lived for a long time in the same house with her.

THE PSYCHONEUROSIS, A REVIEW OF THE PRESENT STATUS OF HYSTERIA AND NEURASTHENIA.*

By CHARLES LEWIS ALLEN, M. D., Los Angeles.

While nervousity has undoubtedly increased with the steadily growing intensity of the struggle for existence, the functional neuroses have always existed, at least since man attained any degree of culture. As to their presence in all ages we have abundant evidence both in sacred and in profane literature. The very name hysteria has come down to us from ancient times and the popular designation for this neurosis in most languages, bears witness to the persistence of ancient ideas as to its pathogeny, which it appears almost impossible to shake off, for while no one believes to-day that hysterical manifestations are due to the wanderings throughout the body of a discontented uterus, the connection of this disease with influences proceeding from the genital organs has been curiously reaffirmed in the "sexual trauma in youth" theory of Freud.

While the disease has always existed and its underlying character has remained the same, its individual symptoms have varied somewhat with the ideas of the day. This in itself is in entire accord with what we now recognize as the chief characteristic of its victims, excessive amenability to suggestion. At the time that belief in sorcery and in demoniacal possession was almost universal, the popular idea affirmed that Satan had stamped his own with certain indelible signs which could be detected by those who knew how to look for them. Among these "Stigmata diaboli" figured localized anesthetics, globus, convulsive phenomena and certain mental peculiarities, which we now recognize as hysterical characteristics and it is not surprising that the army of searchers developed at that time should have had little difficulty in detecting in great numbers these children of the Devil who in many instances paid the supreme penalty of their lives as victims of the "grand neurosis." It has been said that the manuals of sorcery contained in germ the later "Lessons of the Salpêtrière."

The modern history of hysteria may be said to begin with Charcot, who commencing his labors at the Salpêtrière in 1862, had by 1880, extracted from the great mass of material found there, the elements needed for the construction of the clinical history of this disease. Among all the writers up to this time but four can be found who had the hardihood to deny the uterine origin of hysteria. Charcot occupied himself less with theories as to the origin of hysteria, than in painstaking investigation and description of its clinical manifestations, and by demonstrating its occurrence in males he broke definitely away from the idea that it was always of uterine origin. He first described the attacks of the so-called "grande hystérie," and under the head of permanent stigmata, whose presence in one or other form he regarded as essential for the diagnosis, he studied the characteristics of the various anesthetics, hyperesthesias, narrowing of the

visual field, troubles of hearing, smell and taste, and various irregularities of muscular movement, as paralyses, tremors, spasms and contractures. He also described the trophic disorders and some of the mental phenomena of this disease. Under his numerous pupils these researches were extended and in the School of the Salpêtrière the vast and complicated edifice of this so-called protean neurosis was built up. This work has been summarized in the *Traité de l'Hystérie* of Gilles de la Tourette.

The labor was enormous and it appeared that the result should last as an eternal monument to the great master. It was soon found, however, that "Grande Hystérie" rarely occurred in other countries, that many of the other symptoms were wanting, that even the stigmata were often absent, and that to observe hysteria as depicted by Charcot, one must go to Paris, preferably to the Salpêtrière. It is only of late years, however, that the conclusions of this truly great teacher have begun to be seriously questioned, and it is remarkable that the gravest objections come from some of his former pupils, who confess that as a result of ripened experience they have had to change their views. Charcot occupied himself chiefly with the physical side of hysteria, though in his later years he seems to have acquired a conviction of the psychical nature of its phenomena. Even before his death there developed a tendency, especially among the Germans, to explain its manifestations upon psychical grounds, and to attach it rather to the psychoses than to the neuroses. This tendency has spread, and we find to-day that attempts to analyze the mental state of hysterics occupy the chief attention of those devoting themselves to the subject.

To more than outline some of the recent theories of hysteria would take us too far afield. Most of them are based upon more or less hypothetical psychological considerations. All show, however, that the necessity for revising the conceptions handed down to us by the school of the Salpêtrière has been generally felt. Even in the lifetime of Charcot there arose an antagonism of views, particularly with regard to hypnotism and its relation to hysteria, between himself and Bernheim, the chief of the Nancy school. Charcot held that hypnotic phenomena were hysterical phenomena, pathological, and that susceptibility to hypnosis was in itself a proof of hysteria, while Bernheim affirmed that in hypnosis we had a new set of phenomena, differing altogether from those of hysteria and allied rather to those of normal sleep. Moebius and Strümpel considered hysteria as a "psychosis of representation" characterized by the ideas received being at once transformed into acts without the intervention of the will. Breuer and Freud thought that in every case of hysteria there was more or less tendency to dissociation of the personality and to formation of states of double consciousness, and these views Jolly seems to have shared to some extent. Sollier defines hysteria as "A physical functional trouble of the brain, consisting in a numbing or sleep-like condition, localized or generalized, transient or permanent, of the cerebral centers, and

* Read at the Semi-Annual Meeting of the Southern California Medical Society, Dec. 1, 1909.

translating itself by the various sensory, sensorial, motor, vaso-motor and psychic symptoms.

Probably the most important recent theories, however, are those of Janet and of Freud, the later ideas of Bernheim and the most recent views of Babinski. Janet admits the physical stigmata as *manifestations* of hysteria but not as constituting hysteria itself. The capital fact for him, is the general enfeeblement of the nervous functions, whose clinical substratum is an abnormal mental state. This is shown by certain mental stigmata, the most important of which consist in troubles of the intelligence and character. Double personality only exists in the somnambulistic condition. The stigmata are not associated by him with the fixed ideas, which are personal and variable, while the stigmata represent enfeeblements and have been the same since the Middle Ages. Hysteria is a form of mental disaggregation; "a person is not hysteric because he is amenable to suggestion, but is suggestionable because his will is enfeebled." The most important stigma of hysteria is abulia which plays in the genesis of the symptoms a capital role. In the opinion of Freud the majority, if not all cases of hysteria, arise upon the basis of some strong and generally unpleasant impression in connection with the sexual sphere experienced usually in early life, which though perhaps forgotten by the patient, still lurks in the region of the subconscious and modifies the mental operations and the physical acts, inhibiting or exciting, each at the wrong time. This he designates a "sexual trauma" and reasons that for a cure the influence of this impression must be removed. In order to effect its removal, it is first necessary to find out what the lurking idea is, and since the patient will seldom voluntarily disclose it, and may have forgotten its presence, it is usually necessary to bring it out by a method of psychical analysis, often time-consuming in the extreme, in which by a study of the associations formed with suitably selected words, the examiner is able to make at least a shrewd guess as to the morbid idea and by an abrupt demand may secure a confession. Since free confession is good for the soul, this author claims to be able to effect a cure by securing it and by ridding his patient of this obsessive element by what he calls "mental catharsis."

According to Bernheim's latest views, hysteria is not a disease; we are all more or less hysteric and have some of the symptoms, but it is only in those in whom these manifestations are exaggerated that hysteria is present. The unique phenomena of hysteria are the crises, for which alone the name should be reserved. These arise independent of suggestion and are probably due to some special emotion. They consist in exaggeration of the natural psychodynamic reaction, may occur accidentally originally, but may be reproduced and in the end the "hysteric diathesis" may be developed. The so-called physical stigmata are due to suggestion either from without or from within. "The treatment of hysteria is not a matter of suggestion but of de-suggestion."

Although brought up in the school of the Salpêtrière, and for years chief of clinic to Charcot,

no one has more earnestly insisted upon the necessity for a revision of the subject of hysteria, or has done more to eliminate from it the factitious, than Babinski, whose views and whose personality have largely influenced recent discussions of the subject. According to him, even the name hysteria is so much associated with what he calls "paleopathology," that it is a question if it had not better be dropped altogether. In his "dismemberment of the traditional hysteria," he confesses how ripper experience has convinced him that a large number of the formerly described symptoms are due purely to suggestive influences, and arise, either through autosuggestion, or by imitation, or through medical suggestion and are usually absent in patients who have not been subjected to these influences, particularly to those from a medical source. The so-called "*grande hystérie*" (i. e. the convulsive seizures, etc.) has become, in Paris even, almost a thing of the past and many of the stigmata have been unable to stand the light of the twentieth century. In this he is borne out by a majority of the other French neurologists. His greatest service, however, has been in making more clear the diagnostic points between functional and organic conditions, in showing what symptoms of the latter origin are not found in hysteria and in urging the necessity for eliminating all possible organic lesions before attributing paralysis, anesthetics, etc., to a functional origin.

Babinski has expressed his ideas with regard to hysteria in the following terms: "Hysteria is a special psychic state manifesting itself principally in disturbances which may be called primary, and subsequently in secondary disturbances. The primary disturbances are distinguished by the fact that it is possible to reproduce them by suggestion in certain subjects, with rigorous exactitude, and to cause them to disappear under the exclusive use of persuasion. The secondary disturbances are distinguished by the fact that they are immediately subordinate to the primary disturbances." For him, troubles which are producible by suggestion and curable by persuasion are the only ones which are really characteristic of hysteria. Among them, the principal are convulsive crises, paralyses, contractures, tremors, choreiform movements, troubles of respiration and phonation, sensory and sensorial disturbances and vesical troubles. That suggestion can affect the reflexes, or can produce vasomotor, secretory or trophic disorders, by itself alone, he does not believe. He is willing to admit that the latter class of phenomena may arise through emotional influences started up by suggestion, but they do not fulfill his second requirement, since they cannot be controlled by persuasion. Between the words suggestion and persuasion, Babinski draws a sharp distinction, using the former to indicate the conveyance of an improper or unreasonable idea, while by persuasion an influence based upon reason and common sense is conveyed. Since only such disturbances as can be produced by suggestion and removed by persuasion are, according to his view, characteristic of hysteria, he suggests for them the designation "pithiatic phenomena" and for hysteria that of "pithiatism" (Greek: I persuade;—curable).

The subject having been brought before the Paris Neurological Society for discussion in May, 1908, it was found that while its members were in accord with Babinski upon many points, there was lack of unanimity as to the possibility of the stigmata occurring apart from suggestion and as to the influence of the latter upon the reflexes, the circulatory, vasomotor, trophic and secretory functions, and upon the temperature. Neither could they agree as to the meaning to be attached, respectively to the terms suggestion and persuasion nor as to the desirability of substituting the word "pithiatism" for hysteria.

The views of Freud have been opposed and his methods denounced, especially by Aschaffenberg, who declares that for most cases they are wrong, for some questionable and for all dispensable. It would seem that, at least in the class of cases seen in this country, the grubbing up of sexual incidents is much more likely to do harm than good. The discussion of hysteria has had the advantage of clearing away certain misunderstandings, and has brought home to those who have followed the trend of psychopathological research, the conviction that hysteria is a psychical disease and that its manifestations stand in some sort of relation to disturbances of function in the brain cortex. That a definite anatomical basis for it will ever be found seems unlikely, as it is not a definite disease, but a manner of reaction, which, inherent in some constitutions, may be acquired in others through influences which go to alter the nervous arrangements. This is exemplified in hysteria following trauma. The practical result of the study of hysteria has been, on the one hand a better knowledge of the functional neuroses and their relations, and on the other, we have become convinced that since hysteria is a psychical disease its treatment must be in the main psychical.

While typical cases of hysteria can, and should be differentiated, there is an interconnection between the whole group of functional neuroses and they are not infrequently combined in the same individual. Particularly is the combination of neurasthenia and hysteria a common one. Binswanger states in at least half of his female patients he has found a combination of the symptoms of both neuroses. The writer's experience long ago convinced him of the same fact and among the number of neurasthenics seeking relief at the Clinic of the University of California here, there are comparatively few of the women who do not present some of the minor symptoms of hysteria. These considerations have impelled some writers to form a group of "psychoneuroses," which would include in the main hysteria, neurasthenia and hypochondria, though some of the milder forms of mental disturbance might find here a place.

The term neurasthenia has been stretched to include nearly all the functional nervous conditions which could not readily be classified. As Reynolds has said it is "both boundless and formless." It has served its purpose as a convenient catch all, and "nervous prostration" which has had a popular vogue, is often a euphemism which serves to soothe

the family, and to cover the ignorance of the physician, or at least to gain for him time in which to watch the development of affairs. While there is evidence to show that there may be a physical basis for neurasthenia in some of its forms, in its exaggerated manifestations, it is a psychical disease though presenting a different picture from hysteria. How can we conceive of the morbid anxiety, the various obsessions, phobias and "*folie du doute*" arising upon any other basis than that of disturbance of the psyche? The co-operation between psychologist and physician, with the development and popularization of psychological methods, has made for greater precision in diagnosis, and more just estimation of our cases. Particularly stimulating have been the investigations of Janet, and in this country the practical work of Dana and of Morton Prince has done much to clear our views, and to sharpen our conceptions, with regard to the psychoneuroses. In his "Partial Passing of Neurasthenia," Dana has effected as thorough a "dismemberment" of neurasthenia as Babinski has done of hysteria. He insists that fully 50% of the cases which in the past, have been diagnosed as neurasthenia is either made up of the early stages, or represents "*formes frustes*" of the recognized insanities, mainly the manio-depressive, toxic and exhaustion psychoses and dementia precox, though sometimes general paresis. In a more recent article he urges a similar limitation of the term hysteria and describes certain borderland conditions between the two neuroses. The term "psychasthenia," introduced by Janet, has been thought a good designation for a certain class of these cases, and Dana suggests the division of the group of psychoneuroses into:

1. Hysteria proper or major.
2. Psychasthenia, which in its more pronounced form, when accompanied by morbid doubts and fears and obsessive phenomena he prefers to style "phrenasthenia."
3. Neurasthenia, simple and symptomatic.
4. Abortive types of the major psychoses.

While he accepts the general idea that hysteria is a morbid mental condition in which there is a tendency to dissociation of consciousness and of associated memories, leading to disintegration of personality, and in which subconscious states tend to control the body, and to produce certain symptoms and morbid conditions; in common with other writers, he finds it easier to give its clinical manifestations than to define it. The Psychasthenics form a certain quite familiar class of patients of whom time does not permit a description here, but who are in general characterized by deficient will power, tendency to constant and morbid introspection, impulses and fixed ideas, and inability to adapt themselves to their surroundings, or to carry out satisfactorily any useful work. They are not insane and rarely become so, but they are so near the border line as often to raise doubts as to their sanity, though this again is a question of comparisons, for who has yet been able to define the normal mental standard?

We should not content ourselves with a diagnosis

of hysteria or neurasthenia until we have carefully eliminated the probabilities of organic disease and of the major psychoses. That neither of them is a definite disease but rather a manner of reaction, should always be kept in mind, and the frequent association of symptoms characterizing them, with organic disease in the nervous system and elsewhere, must be constantly before us. While psychopathological researches are helping us to a better understanding of their symptoms, their ultimate causes are multifarious and many of them date far back in the history of the race. For their elimination by prophylaxis from future generations, we must begin at the fountain-head, with the existing ancestors of those yet unborn. When the science of eugenics has made such progress that as much attention is paid to the propagation of the human race as is now given to the breeding of our more valuable domestic animals, we may expect a reduction in the number of cases of nervousness and insanity. In neutralizing the causes more immediately operative, general diffusion of knowledge with regard to physical and mental hygiene, the elimination of preventable diseases, the education of the public as to the evils of alcoholic and drug addiction and social progress in the adjustment of work and wage, will lend their part.

As to the processes in the individual organism which give rise to the neuroses, studies in metabolism have so far failed to give us much aid, and that they will ever bring to light any one efficient cause seems very improbable. Continued work along this line, with ever improving methods may, however, enable us to pick up some links in the chain of vicious processes with which the victim is bound up, and may eventually give the clue to the disentanglement of the whole. Psychotherapy, so hopefully and so confidently proposed for the treatment of the neuroses, is too large a subject to be discussed in this paper. In the main it is, after all, but the application of the principles of mental hygiene and mental training, based upon knowledge of mental processes. That physicians should acquire this knowledge and should make use of it goes without saying. In all these things, the role of the general practitioner is a most important one. He it is who, knowing intimately the inherited traits and the mental and physical make-up of his patients, can intelligently counsel and direct their manner of life, choice of occupation and selection of a consort, and who can, and should, by voice and example, further all proper and practical schemes for hygienic and social progress. To no one else is given so great an opportunity, and to none so grave a responsibility, in working toward the future elevation of the human race.

THE NORMAL SHAPE OF THE STOMACH; ITS PHYSICAL AND DIETETIC THERAPY.*

By ALFRED W. PERRY, M. D., San Francisco.

The great charm of surgery is that its remedies are mechanical and the good results following operations are obvious and reasonably sure. This

may be said of the physical and dietetic treatment of most digestive disorders. There is no drug which favorably influences the stomach in the way of stimulation of its secretion, and a very few which have a reputed sedative influence, and even this is disputed. Where there is suffering as the result of stagnation of irritating contents, any alkali may relieve by neutralizing its acid contents, or any evacuant by emptying it completely; this is only relieving a symptom for the moment, and in no way influences the stomach for good. Stagnation of stomach contents is the main cause of the present suffering, and the future progress from bad to worse of all stomach diseases. Mechanical drainage of the stomach is just as important as of a pus cavity.

Boas says that "the chief task of gastric therapeutics must be to regulate the motor functions of the stomach."

Prof. A. E. Taylor of the State University says: "Now the motor functions of the stomach are the most important because they are the least dispensable, and the most important because their loss can be compensated for with the greatest difficulty. . . . The important functions of the stomach physiologically and pathologically are the motor functions, and the lesser functions physiologically and pathologically are the chemical and digestive functions."

The natural position of the stomach allows evacuation of its contents without any muscular aid at all; that is, the pylorus is the lowest point of the perfectly normal stomach. The exact determination of this has only been possible by X-ray pictures of the stomach filled with an opaque bismuth paste. This has been shown by Max Einhorn, Leven, Barret, Holzknacht and Rieder. Recent text-books up to 1906 do not show this.

Only 10 per cent of healthy adults have this normal position, but most healthy children have. In the 90 per cent of healthy adults having not a strictly normal position, it causes no symptoms because compensated by muscular action and development; when compensation fails, then we have symptoms just as in broken cardiac compensation.

The oldest representations of the stomach show it as horizontal in position, with the large curvature as a deep pouch, and the pylorus only a little below the cardia; as these pictures will show, the pylorus is in the course of time (in the anatomies) getting lower, the cardia higher and the stomach assuming a vertical position; the deep hanging pouch still persists, but becomes more shallow, until in 1906 the pouch disappears entirely, and we have the ox-horn shape of Holzknacht.

Although Holzknacht finds his shape in 70 per cent of healthy children and in only 10 per cent of healthy men, he assumes it as the normal type. Rieder with the same findings, assumes his shape as the normal from its prevalence. The reasoning of Rieder will do in determining the normal attachment of muscles, or the distribution of arteries, which organs are not changed by use or abuse, but it will not apply to the stomach and large intestines. Every bilious attack with vomiting, tends to alter the shape of the stomach from Holzknacht's to Rieder's form; and how few persons there are who have

* Read before the San Francisco County Society.

not had many such attacks. I saw in the last month a girl of 13 years with perfectly cylindrical straight toes; she had worn open sandals most of her life. I do not remember to have seen before a white person except with variously curved and prismatic toes. Are we to conclude that this last shape of toe is the normal because the prevalent type? The abuse of the foot as well as of the stomach is well nigh universal, and so the abnormal type of both prevails. The Holzknicht type is apparently the best suited to fulfil its function, viz., prompt and complete emptying between meals.

The outlets of the urinary and of the gall-bladder are also the lowest parts of these organs, and we often see the ill-effects of a raised outlet when the bar of an enlarged prostate gland exists. I trust that these are valid arguments for the adoption of the cow's-horn shape as the normal type for the stomach, and the vertical position.

The abnormal position and shape of the stomach in 90 per cent of healthy adults may not constitute a disease, but it must be an ever present predisposing cause of other diseases, viz., bilious attacks, post-operative dilatation, migraine, hyperchlorhydria and ulcer. The correct form and shape of the stomach being accepted by the medical world, will have important results in practice. When we see that nature has made such a double arrangement, both by gravity and muscular contraction, to effect the prompt and complete emptying of the stomach between meals, we are more likely to aid her by those almost obvious physical measures of position after meals, small meals, finely divided food, cold water only before meals, than by the uncertain action of drugs. It should make the general practitioner realize the folly of delaying surgical intervention in all severe cases of gastric disease, as there is certain to be a motor derangement in all of them.

The principle of treatment in nearly all gastric disorders is to restore the drainage by, first, raising the lowest part of the stomach to the level of the pylorus by a tight bandage over the lower half of the abdomen; this always does some good in cases where the epigastrium is hollow and the hypogastrium is bulging in the erect position. Even in cases where by the X-ray the position is shown not to have been much altered, the distressing nervous symptoms have been entirely relieved; this was because the relaxation of all the abdominal organs, especially the blood vessels, allowed an excessive amount of blood to accumulate in them with a corresponding anemia in other organs; the equilibrium of blood distribution is restored by the abdominal compression. An abdominal bandage should have no elastic in it, and should fasten in front with corset steels.

Prof. Morton found by the X-ray that in many cases of ptosis of the stomach, voluntary contraction of the abdominal muscles would raise the stomach to its normal position; a rise of three or four inches was not uncommon. Abdominal exercises may give a long relief to the sufferings and disorders caused by gastroptosis.

Second, raising the lowered part of the stomach by lying down for three hours after meals, or dur-

ing the period of digestion; this is not suited for all occupations, but the results are often brilliant. To make a digression, I believe that the brilliant results of the rest cure have been in undiscovered cases of gastroptosis or gastrectasis. For persons who must stay on their feet, the liquids at meals must be restricted and the food very finely divided; for those who lie down after meals, much liquid food may be taken. Where plans one and two do not relieve, or cannot be applied, the only resort is gastro-enterostomy, and this must be done before the patient's nutrition is seriously compromised.

A pressing indication for surgical interference in chronic disorders of the stomach is given by a loss of weight of 20 per cent from the norm of 2 1-5 pounds for every inch of height; if the loss is greater than this, the result of operation is likely to be fatal. The losses of weight by fasting in previously healthy persons—Cetti, Succi, Tanner, in shipwrecks, and in attempts at suicide, show that a loss of 40 per cent may be easily recovered from without injury to the subsequent health; the reason of the difference is that in the persons operated upon there has long existed a stagnation of the stomach contents, with abnormal fermentations and production of toxins, whose absorption has lowered their vital resistance.

As there is no drug which acts well and with moderate certainty on the secretory disorders, it seems either a waste of time or a dishonest temporizing to continue drug treatment long; there is some motor disorder at the bottom of every chronic gastric disorder; even if we could remedy the secretory disorder, the motor disorder would remain. Fortunately the reverse is not the case. The results of the analysis after gastro-enterostomy have uniformly shown a restoration to normal chemism where hyperacidity had existed, and also in some cases of hypoacidity; where the hypoacidity was the result of complete atrophy of the gastric glands this could not be expected.

It has been shown by X-ray pictures of the bismuth-filled stomach, that when digestive troubles recurred, after a long period of relief in persons subjected to gastro-enterostomy, the cause was always a closure of the opening, or a sinking of the stomach below the level of the opening, thus allowing stasis to recur.

The secretory disorders are much controlled by diet: much salt, and all spices increase the acidity; an absolute salt free diet extinguishes the HC acidity; all fats and finely divided foods decrease abnormal acidity. The motor and secretory disorders are still more controlled by a suitable diet: by this is not meant taking away each food which is found to disagree; this means starvation, which is worse than the original disease. Any kind of food will agree if in proper physical condition, and any kind of cooking, except fried foods; the optimum for the proteid foods is that they reach and remain in the stomach in a state of the finest division, and warm; for all breadstuffs the ideal is that they be eaten as dry as possible, without any admixture of liquid, soft food, gravy, sauce, preserves, fruit, to soften them except the saliva. The breadstuffs may be given as bread,

toast, crackers, rice, cornbread; the drier the bread-stuffs are eaten the better they will be assimilated, as they are thereby better insalivated.

Where there is no serious anatomical disease, a suitable diet will cure, and even where there is, a suitable diet will often greatly relieve. Of chief importance in prescribing a diet in chronic disease, that the quantity must not be reduced below the physiologic minimum; a quantity that will furnish 2300 calories; this is, roughly, equal to 400 grammes bread, 200 grammes roast meat, 75 grammes fat. Roast meat presumably disagreeing, any form of proteid food may be substituted: milk, soft eggs, brains, tripe, boiled fish, minced meats; all foods must be in a finely divided state; milk as a liquid is in a finely divided state, and yet it often oppresses the stomach like meat, because when taken into some stomachs it coagulates into large, hard lumps, which have the same effect as similar pieces of meat; when milk oppresses it should be modified by heating with some cereal, or given as buttermilk, junket, or peptonized. Meats must be minced after cooking, as that process causes the fine pieces to cohere in large lumps nearly as tough as before. Cream, olive oil, plain or emulsified, butter, bacon fat, beef fat, may be substituted for each other according to the taste, as they are equivalent in nutrition.

SOCIETY REPORTS

ALAMEDA COUNTY.

The meeting of the Alameda Medical Association, for February 15th, was called to order at 8:40 p. m., Dr. Dukes in the chair.

On motion reading of the minutes of the previous meeting was dispensed with.

Dr. von Adelung presented an interesting case of filariasis also chylous urine and microscopical specimen. Patient improving under Wherry McDill treatment.

Dr. Crosby reported having this patient in his care for some weeks about one year ago. At first urine was clear, after about two weeks became chylous, than cleared again.

Dr. Wellman stated that in this case the filaria decreased from 500 per c. c. to 100 during cinchonization. Experiments by Dr. Wellman are now in progress to determine whether mosquitoes indigenous to Oakland may disseminate the disease.

Owing to Dr. Emerson's illness, his paper on the "Surgical Anatomy of the Stomach and Duodenum" with demonstration, had to be omitted.

Also Dr. Rowell's paper on the "Physiology of the Stomach," he not being able to attend the meeting.

Dr. McClurg's paper on "Laboratory Findings in Gastric Ulcer" was read by Dr. Powell.

Dr. Boyes presented a paper on the "Symptomology and Treatment of Gastric Ulcer."

Dr. Hamlin gave a paper on "Gastroenterostomy," demonstrating the operation with drawings.

Dr. Clark presented a patient upon whom gastroenterostomy had been performed. Patient had regained weight, felt well and digestion good.

The cases presented and the papers read brought out an interesting discussion.

Dr. Stratton sounded the warning not to place too much dependence on laboratory findings at the expense of clinical symptoms, such as time of pain, localized tenderness, etc. He had seen perforated ulcers healed without vestige of a scar remaining, having had the opportunity of seeing the patient at necropsy.

Dr. Dudley Smith differed with Dr. Boyes in the use of atropin to control hemorrhage in gastric ulcer.

Dr. Dukes considered the ice bag useless excepting as it compels the patient to remain quiet.

Dr. Green stated that he thought the benefit derived from the ice bag or cake was due mostly to pressure. He had used gelatin with reasonable success in gastric ulcer.

Dr. Ewer pointed out that atropin controls hemorrhage by dilating the peripheral capillaries and ice by contracting them.

Dr. Clark said that the medical treatment had been well brought out, gastric ulcer should be treated medically from one to six months before calling in the surgeon. He emphasized the frequency of a carcinoma implanted upon the base of an ulcer giving symptoms of indigestion or neuralgia. Dr. Clark prefers double Roosevelt forceps to the single in the operation for gastroenterostomy. Dr. Hamlin preferring the single.

Dr. Crosby had seen a case of tabes operated on for gastric ulcer.

Dr. von Adelung uses hypodermic and rectal medication in gastric ulcer and prefers morphin to the ice bag to quiet patient. He emphasizes possibility of ulcer healing under medical treatment even after recurrence and tumor formation.

Dr. Pratt thinks that both atropin and adrenalin do good as long as too large doses are not prescribed.

Dr. Hamlin, in closing the discussion, stated that choice of drugs depended upon pathology of the hemorrhage, adrenalin to control capillary bleeding; atropin, bleeding from the larger vessels.

Following the discussion the association had the pleasure of listening to an interesting talk from Dr. James H. Parkinson, president of the State Society, who briefly outlined the program for the state meeting at Sacramento and emphasized the need of our practicing more gregariously and of consulting more with each other, also the need of stronger and better organization and a more elastic fee bill.

We should increase County Society membership, it helps to elevate individual standards. Character of the State Journal rests with us entirely. He advocated medical defense being taken up by the State Society and that county societies should be more active in regard to legislative matters. At the close of Dr. Parkinson's remarks the president appointed the following committees:

Program Committee: Drs. Lum, Adams and Powell.

Milk Commission: Drs. McCleve, Shuey, Hamilton, Rowe, and Nusbaumer.

On motion, to appoint committee to arrange for annual banquet, the chair appointed the program committee to act as a banquet committee.

After adjournment refreshments were served and a social hour enjoyed.

* * * * *

The regular monthly meeting of the Alameda Medical Association for March was called to order at 8:20 p. m., President C. A. Dukes in the chair. The minutes of the two previous meetings were read and approved.

Dr. Stratton presented two clinical reports showing results of modern therapy in renal lesions. The first report dealt with a patient who had pain in the right dorsal lumbar region and bladder. Much pus and albumin in the urine. Illness extended over a period of some two months without yielding to usual medication. At that time a bacteriological examination of the urine showed colon infection; a bacterin from same was made. Now some seventy-eight days and patient doing well, it being some forty-three days since last recrudescence. Urinary antiseptics were continued in connection with vaccine treatment. Second case: A young woman who had been operated on twice, once for perinephritic

abscess and once for septic peritonitis. When seen by Dr. Stratton had poor health, pain in left side and a mass size of an orange. Sinus in scar in lumbar region. Bismuth paste injected. X-Ray showed sinus leading to site of kidney and about one inch below crest of ilium. Bismuth paste treatment continued for about five months. Liquid mixture always used. Next seen on January, 1910; condition, local and general, continued to improve after treatments were discontinued until sinus and pain had disappeared. Gain in weight, color and health.

Dr. von Adelung presented a case of Adiposis Dolorosa. He first saw the patient January 14, 1910. She complained of pain, swelling of the legs, weakness and nervousness; trouble dates to an exposure to dampness during menstruation nineteen years ago while cleaning house.

The exposure brought on rheumatic attack (inflammatory) in both ankles and both knees. On attempting to examine her, it was noted that she was sensitive to the pressure of the finger. This, together with unusual fat formation, led directly to the diagnosis, which later was endorsed by Dr. Herbert Moffit in consultation. Her arms and legs are much enlarged but do not pit although very tender. So tender that the application of the pneumatic bag necessary for the use of the Sphygmomanometer was endured by her with great pain. The fat is located mainly in the arms above the elbow over which it drops in a thick fold; and on the thighs to the knees at which point it again droops, and on the abdomen, where it forms a huge pendulous mass. The face, hands and feet are normal. The patient is weak physically, neurasthenic, and psychasthenic. Knee jerks are absent, constant headaches and vomits nearly every night. The skin is normal, the blood pressure is 147, the blood count normal, the hemoglobin normal. She urinates frequently day and night, passing seventy-seven ounces in twenty-four hours, but the urinalysis is otherwise normal. Her weight is 251. Menstruation ceased last October. She is 54 years old. Thyroid not palpable. Pulse 92, Cardiac palpitation, heart sounds normal.

Dr. Case presented two patients addicted to the use of morphin and outlined his treatment in each case.

Dr. W. A. Clark's patient failing to be present, demonstrations of the open method of reducing fractures had to be omitted.

Dr. Martin Fischer presented his subject, "The Nature, Cause and Treatment of Edema," demonstrating the same with frogs, drawings and pathological specimens.

Dr. H. G. Thomas' paper, "The Nature, Cause and Treatment of Glaucoma" (with demonstration), had to be omitted. Dr. Thomas being indisposed.

Discussion on Dr. Fischer's paper:

Dr. Briggs: Why is there an edema in diabetes, which is an acodosis, and what causes pulmonary edema?

Dr. von Adelung: Are the facts given in this paper applicable also to the angioneurotic edemas which are due to vasomotor conditions? Are these also explained by asphyxia of the locality?

Dr. Emerson: I saw an angioneurotic edema in the sublingual tissue and to do something for relief, made an incision, but to my surprise found no fluid.

Dr. Galraith: Why does a drop of atropin in a person of middle age sometimes cause glaucoma? Is that due to decrease of oxygen? Dr. Henry Lathan of Philadelphia and others claim that colloids are dialysable. Is that the same principle?

Dr. Stratton: Why is edema most marked at the dependent parts? Is it due to general dioxidation? We would also like to hear more details as to treatment.

Dr. T. H. Clark: Why localization of edema about the eyes in arsenical poisoning?

Dr. Fischer: Diabetes is not primarily an acidosis; not as much so as some other diseases. The coma of the final stages may be due to edema of the brain. Pulmonary edema is not due to interference with the pulmonary circulation. Tying of pulmonary vein does not cause it but interference with the systemic circulation and shutting off of the bronchial arteries. The fluid is in the lung tissue before it accumulates in the alveoli. This latter is analogous to accumulation in other body cavities. It is a phenomenon of surface tension. Angioneurotic edema comes only in a person who is "chemically wrong"; add to that some slight injury and a contact reaction occurs. Urticaris from flea bites is due to hypersensitiveness to minute doses of formic acid. It can be influenced by diet; cachlorids relieve it. The same principle holds in chilblains.

Atropin is one of the most vicious alkaloids for causing deoxidation. It is counteracted by sodium citrate. Local predilection of edema, in arsenical poisoning for instance, is due to the fact that the connective tissues around the eyelid have a higher affinity for water than any other in the body, hence they are the first to swell.

In cardiac edema the predilection for the most dependent parts of the body is due to the fact that they being farther away from the heart contain less oxygen. In cardiac affections pulmonary edema is a terminal complication, other tissues farther away from the heart suffer before the lungs do. A patient does not die because he has pulmonary edema but he has pulmonary edema because he is dying. In nephritic disease pulmonary edema is an earlier complication.

Treatment. Edema can be relieved by many things. In the brain, for instance, compression may give relief. It may be relieved by injecting the right kind of salt solution. Death does not come until it is sufficient to shut off the carotid circulation. The pressure on the brain may rise way above that of the circulation as high as 250 to 300. The whole body is a saturated colloid; if you give it salt the colloid shrinks, like the fibrin column and water is given off.

There is no danger to the heart in giving water in toxic edema. Every infection is a function of concentration not of amount. The more water you give a patient with toxic edema the less concentration is there. Water is carried from the intestine to the kidney without any expenditure of energy on the part of the system. Near the intestinal tract the blood has a high concentration of salt, is under-saturated for water, hence water goes into it from the intestines. In the lungs the blood loses the salt so when it comes to the kidney it necessarily gives off that extra water. During this circuit the water absorbs a good many substances.

Under business the following communication was read:

"The Alameda County Dental Society.

"Dr. Charles A. Dukes,

"Alameda County Medical Society,

"Oakland, California.

"Dear Doctor:

"The Alameda County Dental Society is giving a 'theater party' on the evening of April 11th at the Orpheum. The proceeds of the party will be used for the establishment of a free dental clinic. We desire the support of your society and our finance committee have reserved all the boxes for this evening; hoping to dispose of them to the different professional associations.

"Box seats are \$1.00. A representation from your society will be greatly appreciated.

"Respectfully,

"PAUL T. CARRINGTON,

"Secretary."

Owing to the fact that nearly all present had arranged to attend the benefit no official action by the association was taken. Dr. Florence Sylvester, in speaking for the cause, urged the support of the association, in as much as such a clinic was greatly needed.

The following resolution, introduced by Dr. H. N. Rowell, was unanimously adopted and the secretary instructed to transmit a copy to the Board of Supervisors:

"Whereas, By reason of the increasing population of Alameda County the present accommodations for the county poor have become entirely inadequate, and

"Whereas, The Honorable Board of Supervisors of Alameda County, keenly alive to the humane duties devolving upon them, have recognized the absolutely imperative necessity of better facilities for handling the sick and have, by resolution, determined to procure a tract of land and erect hospital buildings of latest type and design, properly equipped within the city limits of Oakland, therefore be it

"Resolved, that the Alameda County Medical Association does hereby congratulate the Honorable Board of Supervisors upon its recent decision, and to offer its assistance in any manner, to the end that our new infirmary be such that it shall reflect credit upon this county generally and afford relief for the increasing number of indigent sick."

Dr. Florence Sylvester called attention to the annual meeting of the Alameda County Association for the study and prevention of tuberculosis to be held on Friday, March 18th, at 8 p. m., at the Chabot Observatory.

There being no further business to come before the association, upon motion duly seconded and carried, the meeting adjourned.

PAULINE NUSBAUMER, Secretary.

BOOK REVIEWS

Studies on Immunization and their Application to the Diagnosis and Treatment of Bacterial Infections. By Sir A. E. Wright, M.D., F.R.S., Director of the Department for Therapeutic Immunization, St. Mary's Hospital, London. Late Professor of Pathology, Army Medical School, Netley. Archibald Constable & Co., Limited, London. 1909.

This volume is a reprint of papers which appeared originally in various English journals. With the exception of technical details, which are promised for a later volume, it represents a full report of the voluminous labors of Wright and his associates in this field during the last twelve years.

The book is divided into two parts, the first dealing with the scientific phases of the subject—the author's theories as to the mechanism of immunity, its production and application, with experiments to prove them; the second with the practical aspect, Wright's vaccine treatment of infections, and the practical value of the opsonic index in diagnosis and as a guide to treatment. The preface contains a concise statement of the author's views as well as a history of their development in his mind. Neither this nor the rather original index which appears in the form of a synopsis, should escape attention.

Very few pieces of research in medicine have found the instant and keen response in interest if not in full acceptance from all over the world, that Wright's work has found; the subject is still one of live interest, and inasmuch as Wright and his associates have done incomparably more and incomparably better work than anyone else, this book will find acceptance as a kind of classic. In the face of the figures given here, to say that any use of the opsonic index is necessarily unreliable is to show

ignorance of the extraordinarily careful and accurate work which has been done in Wright's laboratory. Some of us are honest enough to say that our own estimations of the opsonic index are unreliable, and to believe that the method is far too complicated to make it worth while to spend the great time necessary to attain technical perfection, but that is not to say that technical perfection is impossible. Opsonic therapy has suffered from deductions based on too much careless and slipshod work, especially in this country.

At the same time, brilliant as the papers are in many ways, the author will find few in any other country than his own who will follow him so far in ascribing almost exclusive importance in immunity to opsonins, or to phagocytosis. We cannot escape an impression of one-sidedness in reading this volume. Metchnikoff's original propositions on phagocytosis have steadily lost rather than gained ground in the light of newer studies on serum and immunity, such as those by his own pupils, Bordet and Gengou, and by Ehrlich and a host of German observers.

The book, however, will repay careful reading by everyone at all interested in vaccine-therapy, or in the broader field of immunity in general. Perhaps it will serve as a deterrent to the too-common slipshod methods in this field.

J. L. W.

Studies in Immunity. By Prof. Jules Bordet, Professor of Bacteriology at the University of Brussels, Director of the Pasteur Institute of Brabant, and his Collaborators, collected and translated by Frederick P. Gay, A. B., M. D., Instructor in Pathology, Harvard Medical School.

This volume should attract more than the usual amount of interest, containing as it does many of the researches from which the rapidly enlarging science of immunity took its origin. As the translator suggests in his preface, in this day of the "over-Germanizing" of American science, it may surprise many to discover that not Ehrlich but a Frenchman, Bordet, was not only the pioneer in the newer studies of immunity, but the contributor of a great mass of the most fundamental research. The all-important fact, for example, of the participation of two bodies, alexin and sensitizer or anti-body in all reactions of the immunity type in the animal body, was one of Bordet's early demonstrations, and his complement-fixation test as described in one of these papers (p. 190) is now more generally known in its specialized application as the Wassermann reaction for syphilis, but was widely used by its originator for the detection of a great number of different diseases. Bordet's application of a serum-reaction to the differentiation of blood-stains from different animals has already become of great medico-legal importance.

While this collection consists, except for the last chapter, only of papers which appeared separately, the effect is by no means fragmentary, inasmuch as the problems attacked were the ones basic to the whole subject, the applications of which are general. Among the most interesting papers, partly because they are the first steps in a new direction, and indicate the path which progress must take, are those correlating immunity-reactions with the newest knowledge of physical chemistry—especially the behavior of inorganic as well as organic colloids in reactions which are strictly comparable with those of immunity. It needs no gift of prophecy to foresee that the next great advance in the understanding of the life-process will come with the exploration of the great field of colloid-action, in which Bredig's researches in the inorganic kingdom can be carried almost bodily into the animal.

Bordet is known as the foremost opponent of the Ehrlich side-chain theory. This he attacks very ably and with the utmost good-feeling and courtesy in the

last chapter. He himself shows no taste for speculations beyond the immediate range of his particular experiment, and does not attempt to replace Ehrlich's explanation with one of his own, but he believes strongly that the latter in spite of his great ingenuity has to strain his theory too far in the attempt to cover the facts, and that in many instances the facts are not covered.

In closing we would compliment Dr. Gay on a peculiarly excellent translation, as well as on his judgment in bringing these papers before the English-speaking public.

J. L. W.

Technik der Extensivverbände. By Drs. Bardenheuer and Grassner. Fourth Edition. 1909.

This small work is so well known to those interested in the handling of fractures that it scarcely seems necessary to analyze the whole contents of the publication. Eminently practical and full of suggestions, the book has deservedly won a popular place in the library of German-speaking physicians who have had abundant opportunity to test the methods recommended by Bardenheuer. In the reviewer's opinion, Bardenheuer's results in Cologne are the best he has ever seen. Anatomically they are perfect. Instead of using splints as is usually done, he corrects the various displacements and in fractures of long bones maintains extension, by strips of adhesive plaster applied in such a manner as to overcome the action of the different muscles. While this has given excellent results in his own hands, others have frequently had considerable difficulty in handling these strips. We are therefore pleased to note that on pages 14 and 15 of this edition he recognizes the many advantages of Heusner's extension bandage which he describes in full.

Heusner's method is simple of application and may be quickly applied under the most varied circumstances. It will support a traction of 30 or 40 pounds. For example, in cases of fractured femur, a solution of fresh Venetian turpentine 50 parts and 70% alcohol or benzine 100 parts are sprayed or painted over the lateral portions of the leg and thigh. Over this is applied a strip of flannel blanket 3 or 4 inches wide and 2 to 2½ yards long, in such a manner as to form a sling about 10 inches below the sole of the foot. Care should be exercised to see that the bandage comes over the external and internal malleoli. Finally a circular bandage of starched gauze is applied from the malleoli to the trochanters, the knee and malleoli being included in the bandage. It is, of course, understood, that the general rules laid down by Bardenheuer for extension bandages must be followed. Counter-extension is applied at once. The bed must be flat, which requirement is easily obtained by putting some object like a house-door under the mattress; no sliding foot-piece is necessary and a pulley may be dispensed with. While a weight of 30 pounds may be at once applied, it has been found advisable to begin with about 10 pounds, gradually increasing this by adding 2 pounds every 2 hours until the maximum weight is attained. After a day or two, when the femur has regained its normal length, the weight is gradually lowered to about 14 pounds, which is maintained for a few weeks.

This method of dressing fractures commends itself on account of its cheapness, and from the fact that it may be applied quickly and without much special training. No irritation of the skin has been observed and the dressing may be readily changed if necessary. It is applicable to fractures of both the upper and lower limbs. From a rather large personal experience the reviewer is convinced that Heusner's bandage in the treatment of fracture cases offers great advantages over most of the other methods commonly employed.

P. C.

Vital Economy. By John H. Clarke, M. D. A. Wes-sels. Newold Pub. Co., New York. 1909.

This little work breathes a spirit of kindly tolerance for the peculiarities and prejudices of the individual, at the same time offers a happy mean, in its suggestion to practice reasonableness in all things, whether it be food, drink or the care of one's body. The text of its little sermon might properly be, "Every one is a law unto himself." Withal the work contains much sound and wholesome common sense, presented in a plain, colloquial manner. Its perusal will afford a pleasing and satisfying half hour.

J. C. S.

The Propaganda for Reform in Proprietary Medicines; sixth edition. Containing the various exposures of nostrums and quackery which have appeared in the Journal of the American Medical Association. Price, paper, 10 cents; cloth, 35 cents. Pp. 292. Illustrated.

This book presents in convenient form most of the exposures that have appeared in the Journal of the American Medical Association showing fraud either in the composition of various proprietary preparations or in the claims made for such preparations. Not all of the products dealt with, however, are such as are—or have been—used by the medical profession. Many preparations of the "patent medicine" type have been subjected to analysis, and the results of such examinations appear in this volume. The book will prove of great value to the physician in two ways: 1. It will enlighten him as to the value, or lack of value, of many of the so-called ethical proprietaries on the market; and 2, it will put him in a position to answer intelligently questions that his patients may ask him regarding the virtues (?) of some of the widely advertised "patent medicines" on the market. After reading the reports published in this book physicians will realize the value and efficiency of simple scientific combinations of U. S. P. and N. F. preparations as compared with many of the ready-made, unstable and inefficient proprietary articles.

New and Nonofficial Remedies, 1910. Containing descriptions of articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to Jan. 1, 1910. Paper. Price, paper, 25 cents; cloth, 50 cents. Pp. 256.

This is the 1910 edition of the annual New and Nonofficial Remedies, issued by the Council on Pharmacy and Chemistry of the American Medical Association, and contains descriptions of all articles approved by the Council, up to Dec. 31, 1909. There are also descriptions of a number of unofficial non-proprietary articles which the Council deemed of value. The action, dosage, uses and tests of identity, purity and strength of all articles are given. As an illustration of the scope of the book, attention is called to the following: The articles on arsanilic acid and its derivatives, page 35; on phenolphthalein, page 152, and on epinephrine, page 73, indicate the effort which the Council is making to have new remedies known by their correct names. The description of medicinal foods, page 120, should put physicians on their guard as to the small value of such products. Particular attention is called to the description of serums and vaccines, page 169. Since our knowledge of the therapeutic value of new remedies is still largely in the experimental stage, the statements which appear under each proprietary article are based largely on the claims made by those interested. On the other hand, on page 56, under creosote carbonate, is a note on the claims of non-toxicity often made for certain remedies. A similar caution in reference to the claimed harmlessness of intestinal antiseptics appears on page 41 under betanaphthol benzoate.

Bacteriology for Nurses. By Isabel McIsaac, author of "Primary Nursing Technique," etc. The Macmillan Co., New York. 1909.

This book is one of a series of text-books for nurses, many of them by the same author. We imagine that bacteriology should be taught nurses with three ends in view: First, "general culture,"—such an acquaintance as anyone connected with the art of medicine should possess; second, the amount of practical knowledge which a surgical or office-nurse might require,—the preparation of dressings, sterilization, asepsis, etc.; third, a training in laboratory procedures,—preparation of media, examination of cultures, etc.—which an office-nurse might well do, but which is not a part of the ordinary training. These requirements are adequately covered in the present volume, the first perhaps more satisfactorily than the other two.

J. L. W.

HONOR TO DR. COLBY RUCKER.

The many friends of Dr. William C. Rucker, Passed Assistant Surgeon in the Public Health and Marine Hospital Service, will be delighted to learn that he has been made a Fellow of the London Society of Tropical Medicine and Hygiene, in recognition of his splendid work in fighting plague in California. The same honor has recently been conferred on Dr. Rupert Blue. California has expressed her gratitude to these men and it is pleasant to see that other lands are doing so as well.

TO THE MEDICAL PROFESSION.

A gentleman of means has a member of his family afflicted with progressive muscular atrophy, the diagnosis having been with certainty established after consultation with some of the highest neurological authorities of New York City and various cities of Europe.

These physicians are unanimously of the opinion that the case is incurable, inasmuch as up to the present there has been published no form of treatment or medication which is known to have positively cured or arrested the inroads of this malady.

This gentleman wishes to spare no effort to bring relief. He believes that, perhaps, somewhere some physician may have successfully hit upon some method of curing a case of progressive muscular atrophy, but who, through his inability to corroborate his results, owing to rarity of cases or through modesty or for fear of being discredited, has failed to publish his case. This gentleman's idea is to try to bring this record to the surface by making an appeal to the profession through this journal.

The case itself presents the characteristic picture and is typical of progressive muscular atrophy in every particular. The patient is fifty years old; married; in excellent general health. About one and one-half years ago the disease made its appearance in the left hand, progressed, and within a few months involved the right hand. Its progress since has been very slow. The family of this patient wishes to announce that any physician who supplies a complete history and detailed description of the method of treatment of any case of progressive muscular atrophy he may have successfully treated, the trial of which leads to the cure or arrest of the disease in their relative, will be rewarded by a liberal cash prize.

Requests for further particulars and replies should be addressed to "Enquirer," care California State Journal of Medicine, 930 Butler Building, San Francisco.

ARMY MEDICAL CORPS EXAMINATION.

The Surgeon-General of the Army announces that preliminary examination of applicants for appointment as First Lieutenants in the Army Medical

Corps, will be held on July 18, 1910, at various army posts throughout the country.

Full information concerning the examination can be procured upon application to the "Surgeon-General, U. S. Army, Washington, D. C." The essential requirements to securing an application are that the applicant shall be a citizen of the United States, shall be between 22 and 30 years of age, a graduate of a medical school legally authorized to confer the degree of doctor of medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training or its equivalent in practice. The examination will be held concurrently throughout the country at points where boards can be convened. Due consideration will be given to localities from which applications are received, in order to lessen the traveling expenses as much as possible.

The examination in subjects of general education (mathematics, geography, history, general literature and Latin) may be omitted in the case of applicants holding diplomas from reputable literary or scientific colleges, normal schools or high schools, or graduates of medical schools which require an entrance examination satisfactory to the faculty of the Army Medical School.

In order to perfect all necessary arrangements for the examination, applications must be complete and in possession of the Adjutant-General on or before June 27, 1910. Early attention is therefore enjoined upon all intending applicants. There are at present 123 vacancies in the Medical Corps of the Army.

NEW AND NON-OFFICIAL REMEDIES.

SULPHO-LYTHIN.

Abstract from the report of the Council on Pharmacy and Chemistry of the American Medical Association (Journal A. M. A., Dec. 8, 1905, page 1930).

The following report was submitted to the Council by the subcommittee which examined Sulpho-Lythin:

To the Council on Pharmacy and Chemistry:—The following report on Sulpho-Lythin is herewith submitted:

Sulpho-Lythin is sold by the Laine Chemical Company, New York. In the literature sent to physicians it is said: "This product, the sulphophosphite of sodium and lithium (non-effervescent) is entirely new and is unique in its action."

Chemical analysis of a specimen of Sulpho-Lythin purchased in the open market, indicated its composition to be:

Sodium sulphate, anhydrous.....	10.51
Disodium hydrogen phosphate, anhydrous.....	56.67
Sodium thiosulphate, anhydrous.....	20.78
Sodium chlorid.....	5.98
Lithium, as citrate.....	3.12
Sulphur, free.....	0.16
Moisture.....	1.53
Loss.....	1.25

The examination, therefore, shows that Sulpho-Lythin is a mixture consisting mainly of sodium sulphate, sodium phosphate, and sodium thiosulphate. The statement that it is a "sulphophosphite of sodium and lithium," therefore, is not correct, and a statement that "it is entirely new and is unique in its action" appears unwarranted and misleading. It is, therefore, recommended that the preparation be refused recognition. It is also recommended that an article be prepared for publication calling attention to the exaggerated claims made for Sulpho-Lythin.

The recommendations of the subcommittee were adopted by the Council, and in accordance therewith the report is published, with the following comments.

W. A. PUCKNER, Secretary.

According to the above analysis, this wonderful new remedy, "which surgeons of this city (New York) have used . . . after laparotomies . . . with excellent results," is simply a mixture of well-known salts obtainable in any drug store, and which any third-year student knows how to prescribe and even to compound.

Examination and analysis of various specimens of this product demonstrated that its composition is not always the same. Thus analysis of one specimen indicated only 5.12 per cent. of anhydrous sodium sulphate instead of more than 10 per cent. in the first specimen; also this specimen contained 10.45 per cent. of water instead of 1.53 per cent. Apparently, therefore, the manufacturers are not competent to prepare a product of constant composition. One chemist calls attention to the fact that different portions taken from the same bottle differed widely in composition. The following is taken from his report:

The analysis shows Sulpho Lythin is not a definite chemical compound, but a mixture of sodium phosphate, sodium thiosulphate and some compound of lithium. That it is only a mixture is shown by the fact that in the examination for thiosulphate when the substance was examined without first being thoroughly mixed, results were obtained varying from approximately 27 per cent. in the first portions taken from a bottle, to 42 per cent. in the last portions of the same bottle.

WONDERFUL VIRTUES OF THE NEW COMPOUND.

According to one circular, this simple mixture of salts is a great remedy for:

Disorders of the Liver, Inflammation of the Gall Bladder and Bile Ducts, Acute Congestion of the Liver, Gall Stones, Intestinal Indigestion, Chronic Constipation, Rheumatic and Gouty Conditions, Diabetes, Nephritis, Acute or Chronic Bright's Disease, Genito-Urinary Diseases, Miasmatic (Malarial) Fevers, Skin Eruptions, Corpulency or Obesity, Convalescence from Alcoholism and the Treatment of Drug Habits.

In another circular we read:

"It is not itself a cathartic or even a laxative, but catharsis results from its administration because of the bile that is poured out into the intestinal tract, and the sulphur liberated by its decomposition."

Wonderful chemistry that is able to remove the laxative quality from Glauber's salts!

"Sulpho-Lythin is absorbed and passes into the circulation, where it exerts an antifermentative and antitoxic action, restoring and preserving normal alkalinity of the blood and preventing or counteracting septic processes throughout the body. It is also a solvent for uric acid."

Thus the great puzzle of an internal antiseptic is solved and that which generations of pharmacologists have failed to find is discovered by an ingenious layman, who now imparts his discovery to the medical profession at so much per bottle. Does he suppose that intelligent physicians still entertain the notion that anything that contains a grain or two of lithium to the dose will act internally as a uric acid solvent?

"Sulpho-Lythin acts also on the skin, stimulating the perspiratory glands and removing discolorations and eruptions on its surface."

Our amateur pharmacologist has probably applied his knowledge of amateur photography to therapeutics and uses "hypo" to remove eruptions as well as stains.

NOT ADVERTISED TO THE PUBLIC?

This nostrum is not advertised to the public. Oh no! It is put up solely for physicians' use (sic). But the physician is repeatedly advised in the advertisements to "order always an original (6 ounce) bottle to prevent substitution."

If any apology is necessary for devoting so much

space to such an insignificant nostrum it is found in the fact that Sulpho-Lythin is supported by testimonials from physicians of influence and standing, and is advertised in medical journals supported in part by educated and thoughtful members of the medical profession. It is also a sample of hundreds of other so-called "ethical proprietaries" which are made or sold by men who have absolutely no knowledge of drugs or of medicine, but who presume to advise physicians how to treat their patients. If these preparations are to be used some control to ensure their constancy of composition and the good quality of their ingredients is essential, and it is evident that the Council on Pharmacy and Chemistry was created none to soon to fulfill this important mission.

URON AND THIALION.

Abstract from the report of the Council on Pharmacy and Chemistry of the American Medical Association (Journal A. M. A., Nov. 3, 1906, p. 1500):

The following reports were submitted to the Council by the subcommittees which examined Uron (Uron Chemical Company) and Thialion (Vass Chemical Company):

To the Council on Pharmacy and Chemistry: The following report on Uron is herewith submitted. Uron is sold by the "Uron Chemical Co., Box A., St. Louis, Mo." In the literature distributed to physicians and in advertisements appearing in current medical journals $\text{LiC}_{12}\text{H}_7\text{N}_4\text{O}_2$ is given as the chemical formula of Uron.

According to analysis, this article is not a chemical compound, but is a mixture of lithium benzoate and hexamethylenamin in approximately the following proportions:

Lithium benzoate	58 per cent.
Hexamethylenamin	42 per cent.

It is recommended that Uron be refused recognition and that this report be published.

To the Council on Pharmacy and Chemistry: We beg leave to report on Thialion as follows: Thialion is sold by the Vass Chemical Co., Danbury, Conn. In the literature supplied to physicians and in the advertisements in medical journals Thialion is stated to be a "laxative salt of lithia" with the chemical formula $3\text{Li}_2\text{O} \cdot \text{NaO} \cdot \text{SO}_3 \cdot 7\text{HO}$. "Sodiotrilitic anhydrosulphate" is given as a synonym. An elaborate graphic or structural formula is also given.

According to analysis, this preparation is a mixture consisting chiefly of sodium sulphate and sodium citrate, with very small amounts of lithium, the average of several estimations indicating the following composition:

Sodium citrate	58.6
Sodium sulphate, anhydrous	26.6
Sodium chlorid	3.3
Lithium citrate, anhydrous	1.8
Water	9.7

Thus, the advertising literature is a deliberate misrepresentation of the facts. It is, therefore, recommended that the preparation be refused recognition, and that this report be published.

The recommendations of the subcommittee were adopted by the Council, and in accordance therewith the above reports are published.

W. A. PUCKNER, Secretary.

In publishing the above report the Council is presenting to the medical profession another object lesson, and one that illustrates how easily our profession is being humbugged. Many of the scientific chemical compounds and derivatives given us by the German chemists have been distinct advancements. It is not strange that imitators should appear, and Antikamnia, Ammonal, Phenalgia, Salacetin, and now Uron, Thialion are foisted on the profession. We are told, and many believe that these wonderful compounds, by the mysterious union of

their ingredients, possess therapeutic properties different from, or more powerful for good than, the drugs from which they are made.

There is another factor worth noting connected with this subject: When to the claim that the mixture is a "chemical compound" is added a complex chemical formula, it prevents the impertinent question, "What is it?" For isn't the "formula" there, and is not the information given without the asking? Most of us have been so overcome by the display of the chemical knowledge of the nostrum maker that we have been afraid to expose our ignorance by asking for information or explanation. And thus the promoter avoids perplexing questions, which, if answered truthfully, would spell bankruptcy.

The Uron Chemical Company informs us, concerning Uron, that it has the chemical formula of $\text{LiC}_{12}\text{H}_7\text{N}_4\text{O}_2$. Now this formula looks very dignified and scientific to those who are not up in chemistry. To the chemist, however, the formula signifies nothing. A few simple tests reveal the composition of the mixture, and it is surmised that the "formula" is the result of an attempt to combine the formulas of the two ingredients, i. e., $\text{LiC}_7\text{H}_5\text{O}_2$ and $\text{C}_5\text{H}_2\text{N}_4$, the addition being faulty.

In regard to Thialion, the formula furnished by the Vass Chemical Company is even worse. To a physician who possesses but little knowledge of chemistry it will seem impressive, and he may absorb the idea that it stands for a preparation that is the result of exhaustive scientific research. To the chemist this formula will appear as a jumble.

While there is a ridiculous side to this business, of symbols and numbers that mean nothing, there is also a serious one. Those who have been making money out of us undoubtedly laugh in their sleeves at our gullibility, but to us as members of a presumably learned and intelligent profession, it is not a laughing matter. The whole nostrum business is a shame and a disgrace.

VIN MARIANI.

According to a report of a committee of the Council on Pharmacy and Chemistry, published in the Journal of the American Medical Association, November 24, 1906, "Vin Mariana" is a preparation of red wine, apparently imported from Bordeaux, and fortified, in this country, by an alcoholic preparation of coca leaves or other parts of the coca plant. An analysis of the imported wine showed its alcoholic strength to be 10 per cent by volume, while that of the Vin Mariani as bought in the open market was 16.15 per cent. The finished sample showed also 0.025 per cent of alkaloids (coca bases). It appears that the increased alcoholic strength of Vin Mariani over the Bordeaux wine from which it is made as shown by this analysis, doubtless comes from the alcoholic extract containing the coca bases. Approximately 6 per cent of sugar is also added to the wine. Judging from the analysis, therefore, Vin Mariani corresponds to a mixture of an alcoholic preparation of coca leaves and ordinary Bordeaux red wine, with the addition of about 6 per cent of sugar.

This preparation is in conflict with rule 5 of the Council on account of misrepresentation in implying that the preparation made in this country is imported, and is guaranteed as pure and unadulterated by the United States government. It also conflicts with rule 6 by the exaggerated and misleading statements as to therapeutic value. The firm's letter-heads have printed on them the following:

"Vin Mariani purifies the blood stream, strengthens the circulation, stimulates muscular fiber and nerve tissue, is a respiratory stimulant, strengthens the heart muscles, and is an emergency food in the absence of all other nutriment. Successfully employed as an adjuvant in anemia, debility, diseases of the chest, nervous troubles, muscular or mental

overstrain, neurasthenia and allied conditions, and in certain cases of protracted convalescence."

The committee believes that Vin Mariani is intended as a beverage rather than as a medicine. The report concludes:

"The committee recommends, therefore, that Vin Mariani be refused recognition and that this report be published in full or in part."

The facts are that Vin Mariani is made in this country, but the proprietors endeavor to create the impression that it is a French preparation. It is no longer advertised directly to the laity, but the same object is attained by the circulars around the original bottle prescribed by the physician. Testimonials from eminent foreigners accompany the medicine, while the testimonials of eminent Americans are used on the other side of the Atlantic. Is it possible that the testimonials are fakes? The circulars are calculated to lead the layman to conclude that the remedy is a cure-all.

Can we blame the layman for using Peruna, Wine of Cardui, etc., simply because they are advertised, when there are physicians who, for the same reason, prescribe concoctions that are just as quackish and just as useless? And can editors of medical journals consistently find fault with newspapers for carrying advertisements of fraudulent "patent medicines" when they themselves admit to their pages advertisements of nostrums that are no less fraudulent and of no more value?

NEW MEMBERS.

Jennison, Jno. E., San Diego.
O'Neill, B. J., San Diego.
McKay, W., San Diego.
Cope, Jas. H., Pleasanton, Cal.
Simon, E. G., Oakland.
Backus, W. J., Stockton.
Buckley, W. L., Linden.
Magee, A. C., San Diego.
Swift, S. B., Marysville.
Peery, J. T., Corcoran, Cal.
Rosson, Hanford.
Blodgett, T. D., Tulare.
Horn, Henry, San Francisco.
Feeley, Matilda A., San Francisco.
Pring, Ernest, San Francisco.
Selling, N., San Francisco.
Hubbell, G. R., San Francisco.
Pitcher, Josephine, Half Moon Bay, Cal.
Sawyer, H. C., San Francisco.
Runckel, Geo., Placerville, Cal.
Murphy, A. S., San Luis Obispo, Cal.
Wade, T. L., Cayuces, Cal.
Brown, T. F., Los Angeles.
McCoy, T. J., Los Angeles.
Clarke, W. T., Los Angeles.
Miller, C. F., Los Angeles.
Jones, A. H., Los Angeles.
Clark, W. S., Los Angeles.
Rice, N. J., Pomona, Cal.
Sawyer, E. H., So. Pasadena, Cal.
Crawshaw, J. A., Hanford, Cal.

RESIGNED.

Curtis, H. L., San Francisco.
Baker, C. C., San Francisco.
American, Samson, San Francisco.
Smith, Donald, Belmont (from San Francisco.)

DEATHS.

Childs, A. F., Oakland.
Beetle, C. H., Berkeley, Cal.
Pond, G. P., Menlo Park, Cal.
Horsley, W. H., Mantion, Cal.
Hughes, L. B., in Colorado.
Stockton, Thos. C., San Diego.